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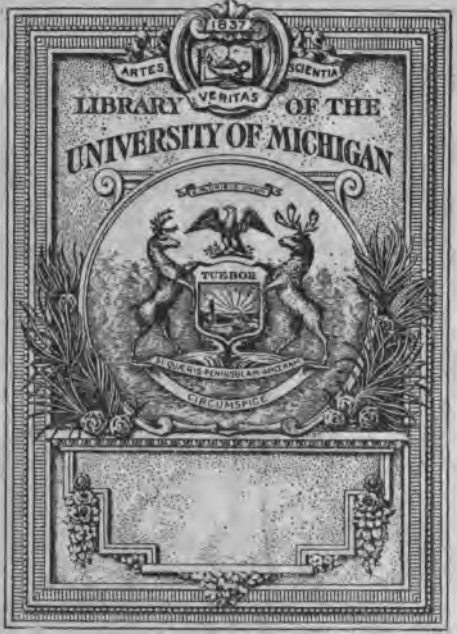

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NATIONAL DEFENCE.

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NATIONAL DEFENCE

ARTICLES AND SPEECHES

BY

LIEUT.-GENERAL SIR EDWARD HAMLEY

K.C.B., K.C.M.G., M.P.

WILLIAM BLACKWOOD AND SONS

EDINBURGH AND LONDON

MDCCCLXXXIX

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PREFACE.

By the persistent efforts of those who had special opportunities for making themselves and others acquainted with it, the question of National Defence has attained such prominence that public interest in it has been strongly aroused. As the present writer has taken part in it throughout its progress from neglect and obscurity to the importance which is now attached to it, it is thought that the republication in a convenient form of his views on the need of measures for defence, and the form they should take, while so much still remains to be done, may be not inopportune.

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NATIONAL DEFENCE.

I.

THE VOLUNTEERS IN TIME OF NEED.

(*THE "NINETEENTH CENTURY," MARCH* 1885.)

MORE than a quarter of a century has passed since the menace of some French colonels, expressive of their ardent loyalty for Louis Napoleon, called the Volunteers into existence. The proclaimed object of the new force was the defence of this country against invasion. In all the years since, there has never been so much reason to provide against that formidable contingency as at the present moment. The situation is far more menacing now than when the Volunteers first assembled in Hyde Park. It is impossible to deny that a combination of certain Great Powers, not ostentatiously friendly to us, would enable them to command our coast

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line and to land a great army on our shores. An especial interest, therefore, attaches to an inquiry into the competence of the Volunteers to bear their part in a possible event, to form a security against which is the reason of their existence.

Since their first establishment the Volunteers have largely increased in numbers. There was a time, some fifteen years ago, when, for some years, the force kept diminishing. But since 1873, when the number enrolled stood at 172,000, of whom nearly 19,000 were non-efficient, it rose steadily, till it stands now at 214,000 enrolled men, of whom less than 7000 are non-efficient.[1] That so many men, of whose lives leisure forms but a small part, should give so much of it to this almost gratuitous service, proves that they have taken up the task in no holiday spirit, and is one of the hopeful signs of the times.

For some years the Volunteers were consti-

[1] It is difficult to say what other forces would be available for defence, because regular troops with their reserves, and in certain cases militia, would be required for foreign service, and to reinforce the garrison of Ireland. Taking the present establishment, and counting Army Reserve, Militia, Militia Reserve, and Yeomanry, the Volunteers would probably form two-thirds of our defensive army in Great Britain.

In November 1888 these numbers had risen to 226,000 enrolled men, of which 220,000 were effective.

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tuted in small corps according to localities—and of these there were many hundreds. The infantry of the force, of which I will first speak, are now formed in battalions made up of companies—manifestly a great improvement; though with the tactical drawback that there is great inequality in the number of companies in a battalion, for any number of men offering themselves, short of the number of a battalion, are added as fresh companies to an existing battalion, and the numbers who offer themselves vary much in different localities. These battalions are allotted to regimental districts in their own counties, and form part of the forces enumerated in the army list as constituting the brigades belonging to those regimental districts which are under the orders of the officers of the regular forces who command those districts.

For instance, the two battalions of the 10th Foot have their depôt at Lincoln, and form with the two battalions of Lincoln Militia the territorial regiment entitled "The Lincolnshire;" with these are affiliated the two battalions of Lincoln Volunteers, having their headquarters, one at Lincoln, the other at Grantham; and the whole—line, militia, and Volunteers—form a brigade under the command of an officer of the 10th Foot, who is said to command the regi-

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mental district. This, with four other brigades, formed on the Norfolk, the Suffolk, the Bedfordshire, and the Essex Regiments, are under the general at Colchester, who commands the Eastern District. Though they would, if needed for defence, be assembled in divisions and corps, they have at present no organisation beyond that of the brigade. When fresh candidates for the force, in any county, desire to form a new body, they address the general of the district; should their services be accepted on his recommendation, they are formed, according to their numbers, into an entire battalion, or into one or more companies added to an existing battalion. Thus not only the number of companies in a battalion, but the number of battalions in a brigade, varies considerably. The Royal Lancaster Regiment has only one Volunteer Battalion, the Lincolnshire two, the Norfolk four, the Devonshire five, the Lothian six. All the Volunteer Infantry counts at this time in round numbers 160,000 efficient men.

The conditions of efficiency are these. A Volunteer rifleman must fulfil thirty drills in the first year, or, in case of shortcomings, make his attendances up to sixty in two years, the drills to be of not less than one hour's duration. His certificate of efficiency must testify to that,

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and also that he has fired a certain number of rounds of ammunition with a sufficiently satisfactory result, and that he possesses a competent knowledge of squad, company, and musketry drill. After his first two years his number of annual drills is diminished to nine.

There are two eminently satisfactory facts connected with this question of efficiency. The one is, that popular opinion in the force is so strong respecting non-efficiency resulting from neglect, that the non-efficient finds he had better retire into private life. The other is, that the average number of annual drills done by Volunteers very largely exceeds the number demanded for efficiency, and that most of the force largely supplement the quantity of rounds of ammunition fired in practice out of their own pockets. The result of this zealous spirit is that more than 97 per cent. of the whole force hold certificates of efficiency.

Besides the ordinary drills, a portion of the force is assisted every year to form regimental camps of exercise. There are few neighbourhoods which do not see something of these gatherings. Or a Volunteer corps may join a military camp, such as Aldershot, for one or two weeks. And as these military camps ought to be models of their kind, the instruction to be

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gained from them may be expected to surpass even that of the regimental camps.

In a battalion of eight companies (and in others in proportion) there are a lieutenant-colonel, two majors, eight captains, eight to twelve lieutenants, a quartermaster, and a surgeon. Of non-commissioned officers there are, roughly, about sixty to seven hundred privates.

Candidates for appointment as officers are recommended by the lord-lieutenants of counties, or, failing them, by the commanding officers, with a detailed description of their qualifications. Officers are recommended for promotion by the commanding officer through the general of the district to the military secretary. At sixty years of age officers resign their commissions unless, at the recommendation of the general, they receive an extension limited to five years.

Officers on half or retired pay of the army are eligible for commissions in the force. The percentage of these is not large.

Failure to attend the number of drills prescribed for the men, without good reason, disqualifies an officer for further service.

Schools of instruction exist at Aldershot, Glasgow, London, and York, for officers of the Rifle Volunteers, who may be qualified by

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elementary knowledge to enter them. They receive pay while going through the course, and quarters, or an allowance for lodging, as well as the travelling expenses. At the end of the course the officer receives a certificate, and the letters *ps* are placed before his name in the army list. Or, the officer may be attached to a regiment of the line or militia, in order to attend prescribed drills. At the end of the course he is examined by a military board, passing which he receives a certificate, and the letter *p* is placed before his name in the army list. Or, instead of these alternatives, he may receive the necessary instruction from the adjutant and sergeant instructors of the corps to which he belongs, when, after passing the examination of a military board, he receives a certificate with the letter *p*, as in the last case.

The very small number of officers who are not thus distinguished in the army list, proves that the very strong unwritten law which determines the conduct of large classes is in this case completely on the side of public spirit and manifest efficiency.

Officers of all ranks may also pass an examination in tactics at the head-quarters of military districts, when the nature of the certificate they

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have obtained is also indicated by a letter in the army list.

The non-commissioned officers are appointed by the commanding officer from among the enrolled members. Sergeants must obtain a certificate of proficiency within one year after appointment. They are tested, in a prescribed examination, by the adjutant, and their certificates, signed by him, are countersigned by the commanding officer.

This adjutant is, for the most part, an officer of the regular or auxiliary forces who fulfils certain conditions prescribed in the Queen's Regulations. He gives instruction to his corps. He visits all parts of it twelve times a year for military instruction. The names of Volunteers present are recorded by him, and he examines the recruits in drill. He notes those Volunteers present who may be qualified for the certificates of efficiency already described, drills the company, keeps a diary of the instruction he imparts, visits the practice ranges, and inspects the arms. He is assisted by duly qualified sergeants from the active army, their principal duty being to attend to the drill and instruction of the corps.

Hitherto the infantry has been spoken of. The formation of artillery Volunteer corps is

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only sanctioned when circumstances enable them to obtain suitable facilities for artillery practice. Great Britain is divided into artillery sub-districts, to each of which a lieutenant-colonel of the royal artillery is appointed under the orders of the officer commanding the royal artillery of the district.

The garrison batteries of the royal artillery and the militia artillery are formed in territorial divisions. Thus a brigade of the royal artillery has its depôt in Sunderland, and forms —with the Durham, Northumberland, and Yorkshire brigades of militia artillery, who have their headquarters at Sunderland, Berwick, and Scarborough—the Northern division. With these are associated twelve corps of Volunteer artillery, having their headquarters at Newcastle (2), Alnwick, Tynemouth, Scarborough, Hull, Middlesborough, Carlisle, Seaham, Leeds, Bradford, Sheffield. The adjutants of these corps and the sergeant-instructors are taken from the royal artillery and royal marine artillery.

They have officers in the proportion of one lieutenant-colonel, two majors, eight captains, and eight to twelve lieutenants, with a quartermaster and surgeon, to a corps of eight batteries, numbering from four hundred to six hundred and forty men, with a sergeant-major and two

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to three sergeants and three to four corporals per company. To obtain a certificate of proficiency the officers can go through a school of instruction at Woolwich, or be attached to a battery of the royal artillery, or a regiment of artillery militia; or be examined by a board of officers—non-commissioned officers are examined by their own adjutants. They may form camps, by corps or by batteries, at stations where gun-practice can be carried on.

The efficient artillery Volunteers in Great Britain number roundly 38,000, forming 62 corps.

Engineer corps are formed, as a rule, of men whose business has fitted or prepared them for the service: of engineers, masons, carpenters, quarrymen, or the like. They form part of the forces of the military districts, and are under the orders of the Commanding Royal Engineer of these. A corps of eight companies has the same establishment as a similar artillery corps in officers, but a larger number of enrolled men, its force being 480 to 800, averaging 80 per company, and their non-commissioned officers more numerous in proportion (sergeants two or three, corporals eight to ten). The three years' course of instruction in the business of engineers comprises the making of field works, the

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preparation of posts for defence, the construction of military bridges, batteries, magazines, and mines. The drills, for two years, are divided into twelve engineering and twenty-four other drills—afterwards six engineering and nine others, and the certificate of proficiency depends on the Engineer Volunteer in each year attending and duly profiting by these.

The Engineer Volunteers number roundly 9000 efficients in 22 corps. Those admitted to a course of instruction go to Chatham for the purpose.

The Light Horse and Mounted Rifles, less than 300 in all, are too few for specific mention.

Of the whole force 6000 officers and 12,000 sergeants hold certificates of proficiency.

Every corps, of whatever arm, is inspected once a year by an officer of the regular army duly appointed. Arrangements are made for the inspection by the general of the district, and time and place are made to suit the general convenience of the corps. Two-thirds of its number must be present, or the inspection is postponed. When a corps is in its regimental camp of exercise it is to be inspected in the camp. But when it joins a camp of exercise of the regular or militia forces, it is not to be inspected there (the number being

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too small for the purpose), but at its own headquarters.

The Volunteers are not left altogether without assistance from the public to defray their necessary expenses. An annual allowance of £1, 10s. is granted for every efficient Volunteer officer (who has attended a prescribed number of drills) and man, with a special additional allowance of £2, 10s., on account of each Volunteer officer or sergeant who holds a certificate of proficiency; and a special allowance of 10s. for every officer who has passed in the year the examination in tactics is granted for that year only. These sums go to the general fund.

Travelling expenses on a fixed scale are granted where companies attend drill at stations more than five miles from the head-quarters of the corps, and artillery corps receive extra allowances for conveyance of guns, or other expenses incidental to gun-practice. Officers receive travelling allowance when on military duty.

Every company or battery receives £4 a year for postage and stationery. Army forms and books are supplied at the public expense, and also regulations, and manuals of instruction and exercise.

The artillery corps from their own funds provide the sites of batteries, obtain leases of

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them, throw up the earthworks, provide accommodation for a resident gunner to take charge of each, and pay for keeping them in repair. The Government provide side-arm sheds and expense of magazines.

Every corps is expected to provide a secure place for the custody of its small-arm ammunition, unless it can be placed in charge of ordnance store officers in Government buildings.

Every Volunteer receives a rifle, belt, and pouch. These they for the most part take with them to their homes. The Snider, hitherto their weapon, is being exchanged for the Martini-Henry.

Such, then, briefly are the conditions under which the Volunteer force is constituted. It is important in other ways besides numbers. The material of these two hundred and odd thousand is of superior quality. Londoners observe with considerable pride the workmanlike aspect of the battalions which march through the streets on their way to the drill ground. That the spirit they bring to the service is thoroughly national and patriotic is proved by the steadily increasing numbers enrolled, by the largely diminishing proportion of non-efficients, and by the zeal of officers and men. A large proportion of the officers

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are bent on extending their professional knowledge; they study the business of drill, administration, and command; they read military works, pass good examinations in tactics, and when in military camps show themselves capable of engaging, on even terms, with regular officers, in the contests of the Kriegspiel. The men go into their work as if they enjoyed it, they give to it increasing proportions of their spare time, and while cases of insubordination are few, it is noted that the more strict the discipline of a corps the more ready is the obedience rendered. And when we remember that this is said of men who are under no obligation to continue to serve, it is a large tribute to their soldier-like quality. Lastly, we need not say that they are, as a rule, of superior education and intelligence; they consequently acquire a knowledge of their duties with unusual quickness, and it is to be expected, from the greater demand which modern war makes on the mental quality of the individual, that this would prove a great advantage before the enemy.

As to their proficiency in exercises, as shown at reviews, manœuvres, and inspections, there is a good deal of important concurrent testimony to the effect that at present they work

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surprisingly well when associated with regular troops, and that within a period of training, after being called out, which different authorities estimate differently, but not exceeding the length of the notice to be counted on before they would be called on to engage the enemy, they would be fit to meet foreign troops in the field.

This estimate is of course formed on the system of training now in practice. Whether much of that system has not now ceased to be practical, whether much time is not spent in learning what does not fit troops for their only true function, is a question which has a wider application than to the Volunteers, though of course it specially concerns those whose opportunities of practice are smallest. But it is likely that a larger proportion of time given to exercising in extended order would not only be more in unison with the requirements of the age, but also better suited to the utilisation of the special qualities of the Volunteer. When revolutionary France confronted Europe in arms, recruits full of zeal and intelligence were plentiful, but time did not permit them to acquire the close and rigid movements of the trained battalions; they were therefore practised as skirmishers, and acted with such effect that that

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mode of fighting was henceforward a necessary feature of an engagement. With no less practical effect would the quick perceptions and individual alertness of Volunteers be specially applied to the extended order in which they would be called on to move against the enemy. It might have been thought that the ancient superstition known as "marching past," demanding much time in preparation for no practical result, could have been dispensed with in the case of men with so little time to spare; but it seems that the relations and acquaintances of the troops take especial pride in seeing them go by in serried ranks, and it is therefore probably a necessary concession, though about three hours of the day's work are thus taken up on Easter Mondays.

Not less essential than training in movements is practice in shooting. At present all Volunteers use a range, where it is obtainable, up to 800 yards. But this is very far beyond what is desirable for the majority. The number of men who can ever make good shooting at long ranges is small, and much time and ammunition are thrown away. It would probably have an excellent effect to limit the practice of all but those likely to be fine marksmen to 300 yards, at which range the sight of the rifle need not be

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elevated. By firing all their ammunition at ranges not exceeding this, the Volunteer line would pour in an unusually effective fire at the distance practically adapted to the ordinary conditions of the battle-field; while the superior shots of each company should be specially trained at Hythe, and would find in a campaign plenty of opportunities for the exercise of their skill.

So far, then, the country has excellent reason to be satisfied with the Volunteers. Far more than could have been expected of what they could do for their own efficiency they have done. At this point the responsibility passes from them, and the question arises: How is this excellent weapon to be employed effectively for its purpose? How are these two hundred thousand men to be so directed as to guard our shores and to assemble promptly on the line or lines of invasion?

In the first place, it is evident that to assemble the Volunteer corps, rifle in hand, at their different headquarters is only a first step towards meeting the enemy. They must be able to march, to encamp, to remain for any requisite time in positions where large bodies could no longer rely on the railways for supply; they must have haversacks, water-bottles, knapsacks,

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mess-tins, and cartridges; they must be accompanied by tents, provisions, ambulances, and ammunition. Where are these to come from? Can anybody indicate even the sources from which all these supplies could, with sufficient promptitude, be drawn? But to indicate the sources would be going only a very small way to the end. For how would this vast quantity of equipment, even if stored in existing depôts, be made available for the troops? To be ready for immediate use on an emergency the personal equipment must be stored at the headquarters of corps. Magazines of ammunition should be formed at strategical points, that is to say, at points from whence their contents could be at once directed on several possible lines of invasion; and depôts of all that is necessary for the maintenance of armies in movement or in the field should also be established at these points. Without all these, the spectacle of the Volunteers assembled by battalions and corps at their own 178 headquarters all over the kingdom, waiting for all this indispensable material to be manufactured, collected, and conveyed, would be of itself sufficient to cause a general panic. The first step, then, towards making the Volunteers a competent army is to create stores of personal equipment at all these headquarters for

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every man, and more than every man, in the regimental district, and to construct and fill the necessary depôts and magazines on all possible lines of invasion. These last, which need not amount to a great number, must be duly protected and placed in charge of officials capable of directing the issue.

Now it is an unfortunate fact that this very first step is the one least likely to be accomplished. All War Office officials are familiar with the process that goes on when the army estimates are to be brought under discussion. A mandate has gone forth for cutting them down by a certain figure. The easiest, the simplest expedient, that which will excite least remark and least inquiry, is to cut down the estimate for stores. Who knows anything about them or cares anything about them? So fortifications are left indefensible, batteries without guns, the army without equipment—and nobody objects. Troops may march about the streets and appear on the parade-ground while quite destitute of the material of war. It is different with the navy, which could not be left without equipment (except indeed in the matter of efficient guns); it is an inconvenient circumstance connected with ships that they cannot exist at all without supplies and equipment; so the only

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remedy in their case is to dispense with the ships.

The reason of this disastrous neglect lies in the extraordinary means by which we are content to administer our departments of war. They are in the hands of Ministers "who never set a squadron in the field, or the division of a battle know," but who are pledged to maintain the interests of a particular political chief and political party. I speak not of any particular party, nor any particular Minister—it is the vice of the system. It is not peculiar to these departments that they postpone the interests of the country to the interests of the party. There is no more powerful projectile with which to assail a political adversary than a charge of extravagance. Accordingly, at every crisis, the leaders use these missiles to bombard each other: "The right honourable gentleman's administration costs the country six millions more than that over which I had the honour to preside." "Not at all; the noble Lord forgets that a much larger expenditure than that was entailed upon us by his own policy," &c. &c., to the great edification and delight of the hearers. If the speakers were to be perfectly frank on these occasions, like the inhabitants of the "Palace of Truth," their avowals would take something of

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this character: "I found my best claim to your confidence on a remission of taxation. The expense of preparing for war is very irksome in time of peace. As I hope for peace in my time, the odium of meeting war without preparation will not fall upon me. I have therefore reduced this item of expense to the lowest point consistent with the maintenance of appearances. I have allowed the army to become a huge simulacrum. I have encouraged that cheapest of national defences, the Volunteers, to enrol themselves, but chiefly at their own expense. I have withheld from them all that could render them of service in case of invasion. I have left the walls of our most important fortresses incapable of resisting an attack; for, to render these defensible, expensive works would be necessary. I have left the navy short of ships and the ships short of guns. While foreign Powers are vying with each other in the effort for military superiority, I have displayed in this respect a masterly inactivity. I am told that in given possible circumstances we might be invaded and even conquered. But let us hope that the contingency is remote, and not to be considered as of any importance in presence of the fact that I hope next year to take a penny off the income-tax." Now, strange

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to say, it is by no means incredible that a popular Minister might address an audience in these very terms not merely without disapproval, but with applause. The political prescience of our real rulers is bounded by next quarter's taxes. Yet there have been (and they may come again) times when such a policy would have led not to Westminster but to the Tower.

The next proposal I shall touch on, with special reference to the Volunteers, is one that the most economical Government might venture to agree to, for it relates only to the completion beforehand of the plans necessary for preparing to meet an invasion. England, with London for the enemy's objective point, is a very compact, and not very extensive, theatre of war. Except along the southern shore, the points of possible landing are well marked and not numerous. Along that shore there exist wide spaces of beach where large forces might be landed at once; points capable of being made into bases of operations need not be chosen, as the real bases might be French, Belgian, or Dutch ports, the short distance from whence to the place of landing would be crossed in a night with supplies and reinforcements. But, in all cases, the groups of roads

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which the enemy must use for the march upon London might be foreseen with exactitude. The whole area between the coast and the capital, divided into possible theatres of operations, must be carefully reconnoitred, and all its military features thoroughly recognised. The first position in each case should be as near the coast as possible. It might not, indeed almost certainly would not, be practicable to assemble a force sufficient to oppose a landing covered by the guns of the enemy's fleet, since there are so many places where demonstrations might be made in order to render the real point doubtful. But, the position selected, the movement of all the field troops in the district, of all kinds and all arms, upon that position should be laid down, and every march by road or rail, every order for the transfer from the depôts and magazines of the necessary material, should be anticipated. And as it might very well happen that a concentration on this first position might not be possible in view of the more rapid concentration of the invaders, the lines of movement on the next position should in the same way be calculated.

A piece of work of this kind was done by the students of the Staff College in 1877. It had been for several years the practice for the

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commandant to select a piece of country offering varied military features, and to plan a series of operations as taking place within its area. The officer-students were then employed as if under a general in actual war. Divided into parties, some on foot, some on horseback, they made reports of the roads, rivers, and railways, calculated the times of marching by road, or being entrained and despatched by rail; devised additions to platforms, and regulated the transit of troops and baggage; took up positions, and placed beyond them a line of outposts. In the year named, some plans of defence having been sketched by the Intelligence Department, it was desired to complete by means of the officers of the college one of these plans. The rate at which the enemy could land in boats at a certain part of the coast was calculated. The orders were thereupon issued; the nearest available troops, the force of which was known, were summoned to observe and oppose, in some degree, the landing; the enemy's first advance, and the measures for obstructing it, were calculated; orders were issued (the writing of all orders was a part of the practice) for the concentration of the troops by rail and road; a first position was taken up on account of its strategetical importance as the troops continued to arrive, and was

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assailed by the still faster increasing forces of the enemy; all our troops were then directed on a position of suitable extent in rear, those already engaged retiring upon it; the manning of the position by the whole force was then planned, the ground sketched, and the troops of the defensive lines and reserves represented thereon; and the line of outposts covering the front of the army was carefully placed, and the due proportion of troops allotted to all its parts. This exercise, when complete in all particulars, was sent to the Intelligence Department.

Something of this nature has been in progress at that department for many years; and two considerable sections between London and the coast have been completed. Six officers who have passed through the Staff College have been generally employed on the work under the chief of the Intelligence Department. And I make no doubt that it has been ably done. Still it appears to me that larger and more special means might well be employed for so important an end. One defect of the present mode is, that, as it must be more or less slow and intermittent, and as the officers directing it change with their tenure of office, there may possibly be some lack of unity in the system. A new chief may bring to the work new ideas not perhaps in harmony

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with those of his predecessors; moreover, it is no disparagement to the officer who may hereafter be chosen to conduct the general business of the department to say, that he may not have been able to give to strategy and tactics the sustained study necessary for so vitally important a task. It should be confided to an experienced officer or officers, assisted by a considerable permanent staff, composed of trained members of the Quartermaster-General's department, Staff College officers, Engineer officers and draughtsmen, and they should proceed with all possible despatch.

The work is at present kept secret; and it would at first sight seem judicious that the arrangements should be concealed from a possible enemy. But secrecy has its disadvantages: a work so entirely unnoticed may, on occasion, such as the demand elsewhere for the services of those engaged on it, be dropped altogether; it is to be feared that, when so few know anything about it, in the end nobody might know anything about it; nor would an enemy find any difficulty in making his own plans, and in calculating, with considerable general accuracy, exactly what we might be expected to do—nay, it is quite possible that schemes including ours are now in some foreign War Office. If it were

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conducted openly, those engaged in the work would be under a deeper sense of responsibility; their plans would be discussed in the army; they would have for what was good the confirmation of general approval, while what was doubtful would have to stand the test of criticism. All these considerations, however, are secondary compared with the step I would advocate—namely, that when these schemes for defence are once finally settled, all the auxiliary forces should substitute for some ordinary drill a rehearsal on the ground of what they would actually do in time of war; that they should form camps near the places where they would be posted; should occupy in order of battle the line of the position; should see every outpost and every sentry posted; should issue from the position in attack, or in pursuit—till there was not a company in the kingdom of the counties along the coast which would not have had the meaning of its existence vividly impressed on it by knowing its own place and its own part in the defence of its own locality. This would be infinitely more practical and more interesting than the ordinary autumn manœuvres, and it would cost nothing more than the present exercises of the militia and Volunteers, except in compensation for any damages to fences, &c.

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By-and-by some autumn bank-holiday might be substituted for the Easter Monday, and all the forces of at least the eastern and southern sections of the country, militia, Volunteers, and regulars, might be assembled at once as defensive armies. What foreigners would chiefly learn from contemplating this would be the useful lesson that we were thoroughly preparing ourselves for a strong defence.

The theory, I believe, is that the field army would be formed of the territorial corps—that is, such line battalions as may be at home, or their depôts, and militia, reinforced by the army and militia reserves; and that the garrison duties should be taken by Volunteers, whose primary function would, of course, be to guard the coasts of their own counties. Happily their number is far in excess of that required for our fortified ports and posts, and a very large proportion of these valuable troops would go to augment the field army. But it is none the less expedient to assign at once to the auxiliary forces, whose headquarters are at or near posts of which they might form the garrisons, the duties which would devolve upon them. For instance, the 2nd and 3rd Hampshire Rifle Volunteers have their headquarters at Southampton and Portsmouth; they number together

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about 2200 efficients; the 1st Hampshire Volunteer Artillery is 1270 strong. Supposing these might constitute suitable garrisons for four of the forts on Portsdown Hill, I would suggest that these troops should be enabled to substitute for some of their battalion and battery drills a rehearsal of the garrison duties, taking over a fort from the present garrison for the day, the rifles manning the defences and furnishing the guards, and the artillery taking post in the batteries. It is especially necessary that these last troops should be exercised with the identical guns which they would serve when called out. Acquaintance with the exact weapon, projectile, ammunition, and equipment is, in these days of complicated engines of war, indispensable to making use of them at all; while the confusion of gun detachments, which, called suddenly to man the batteries, would have to learn where to look for all the necessary stores, need not be described. The Isle of Wight Rifle Volunteers number 670, and should be appropriated in a similar way to that section of the coast defences which is nearest their headquarters. The Devonshire and the Cornish rifle battalions, seven in all, number nearly 6000 men; the three artillery corps of these counties amount to near 2000; and these might be at once assigned to take up,

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in due proportion, the defences of Plymouth, conveyance by rail being given, with other allowances, whenever the more distant corps can find a day for the purpose. It would not be necessary that entire battalions or corps should take up the work together on other than special occasions. When every part of these knows its own place, it may proceed to exercise in its own part of the works, or its own battery, whenever an opportunity is found for the assembly of its members. I use examples only to give point to the suggestion. The consideration of an entire scheme might, of course, lead to modifications; but I think the soundness of the principle of making the men acquainted with their special duties cannot be disputed.

A matter worth attention is to consider what special advantages an army defending an island enjoys over one crossing the sea to invade it, and how these might be improved to the utmost.

First, the facilities of communication will be all in our favour. While the invader must at first depend entirely on the transport which he can land, we shall have railways, roads, and, it is to be hoped, a large transport corps (which, however, must probably be improvised from the vehicles of the district, escorted by Yeomanry),

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at our command. But to render these available it is indispensable that the exact use to be made of every item of rail, road, and transport should be laid down beforehand, with reference to the identical troops which in the first instance are to use it. I believe that the data for plans for railway transport of troops in given districts have been submitted to members of the corps of Engineer and Railway Transport Volunteers to be worked out. These gentlemen are very eminent civil engineers bearing military rank—gentlemen whose names we are all familiar with in connection with the most important and remarkable public works of the time; but I do not know what special opportunities they may have had (unless when one may be a director of a company) of mastering the details of the regulation and service of trains on particular railways, which is the essential matter, and which I should have been inclined to entrust to the railway officials on whom the actual execution will devolve.

Next, it is to be considered that the horses of a great army would occupy a vast amount of transport, and their numbers would be kept down to the lowest limit possible in the invading force. We, on the other hand, should have all the horses and forage in the theatre of war

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at command, and would find no difficulty in employing all that could be used with advantage. We have some 8000 Yeomanry who might do excellent service—not perhaps in manœuvring against and encountering regular cavalry, for which the time they can give to training must be all too little to fit them, but in orderly, escort, and outpost duties. But besides these services, I believe they might play a highly important part if they were trained as mounted riflemen. Many years ago I published the opinion[1] that such a force might at a small cost produce great results. I am told that a prejudice exists on the part of at least some portion of the force to being trained in this way. But I believe that fuller knowledge would remove this. I do not now consider the subject for the first time, and continue to believe that the nature of the service would render it especially popular with the active, the enterprising, and ambitious. Men like Sir Herbert Stewart—an admirable horseman and full of dash—would make ideal commanders of bodies of these, which, under such leading, would neutralise greatly superior forces of the enemy, and might be expected to deal strokes of the most decisive effect. I can hardly doubt, therefore, that if

[1] "Operations of War," fourth edition, p. 439.

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the Yeomanry were trained as mounted infantry they would add immensely to their value as a national force.

Again, the enemy's march would be accompanied only by field artillery; the difficulties of horsing and moving heavier guns would be too great for him. Our guns of position—that is to say, guns of larger calibre than field artillery, mounted on travelling-carriages—would be of immense advantage in a pitched battle. Batteries of 40-pounders, placed on commanding ground, would defeat what must be the first endeavour of the enemy, namely, to crush our artillery with his own before launching his infantry to the attack. An artillery duel is almost of necessity a prelude to a general action, and it may be said that if the assailant fails in it he has but small chance of gaining the day. It would be a most important step accomplished, therefore, to complete the step already in progress, of giving these guns, with their full equipment, as soon as possible into the charge of the Artillery Volunteer corps, who would use them in action, so that they might be thoroughly practised in the service of this kind of ordnance. Sheds should be built for the guns, stores for their equipment, and magazines for their ammunition, near the destined places of the bat-

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teries in the line of battle, which places they should be made to occupy on days of specially complete exercise. We possess, I believe, a practically unlimited number of these guns; so that, supposing a sufficient number to be (and a large number are) on travelling-carriages, all the Volunteer and Militia Artillery available for the field army might be supplied with them. The position thus armed, the more mobile field artillery of the regular army would be disposable to augment the fire of the front or to manœuvre, and an invader must be greatly superior in other ways to contend with success against such a preponderance of artillery.

The task of the Engineer Volunteers attached to the land forces would be chiefly to entrench the positions. With this view, they, like the rest, should have their places assigned according to their localities, and should spend some part of their time of training in becoming so familiar with the sites of the shelter trenches and batteries which they would be called on to construct, that every company would thoroughly know its work and be capable of rehearsing it on its own exercising ground. But there are other modes of employing a part of the force usefully. A scheme has been for some time in progress for defending our navigable

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rivers by submarine mines in charge of the Engineer Volunteers whose homes are along the banks. They are receiving the necessary instructions from the Royal Engineers, and the plan has made such progress that corps have already been assigned to defend in this way four of our rivers—the 1st Newcastle and Durham Engineers are entrusted with these defences for the Tyne, the 1st Lancashire for the Mersey, the 1st Lanark for the Clyde, and the 1st Gloucester for the Severn.

The general scheme of preparation would include a register of all the means of transport in the form of horses, waggons, and carts in the various localities, and the assignment of these to what would be their special duties, and to the troops which each part of them would accompany in the field.

So far, then, I have endeavoured to sketch a complete general plan for the mode of employing the Volunteers as a field and garrison force; a plan which, it appears to me, would endow them with extraordinary efficiency and vitality. Instead of the chaos and confusion that must ensue if the occasion were now to arise for calling the Volunteers to arms—a bewildered crowd, a futile haste, a purposeless tumult—we should have order and method

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secured by practice, and animated by an intelligence which would of itself go far to anticipate directions and rectify errors; resulting in the spectacle of a nation in the most perfect attitude for self-defence, and consequently glowing with the most resolute spirit. Those resources of which we hear so much would then flow in obvious channels for manifest purposes. Yet to render the kingdom secure there is still a measure wanting, and to it I will now advert.

Everybody who has touched on the question of the defence of England has insisted on the necessity of rendering London safe by means independent of the armies in the field. The capital is so near to many points of our coast (one vulnerable point is about thirty miles from London, and others hardly more than forty), that a part of an enemy's army which might succeed, in any way, whether by force or surprise, in moving inland faster than the defenders could intervene, might lay hands on it. Vain would then be any victories of ours elsewhere; the foe would have us by the throat. Therefore, many schemes have been devised for the defence of London. The problem has proved one of quite unique difficulty, owing to the vast and constantly increasing area of the metropolis. Only a military ruler, absolute in

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power and energy, could face the task of making of it a fortress, that is, of enclosing the town with ramparts to secure it from assault, and surrounding these with an outer circle of forts to shelter it from bombardment. A compromise has been more than once attempted by abandoning the idea of the ramparts, and proposing to surround the capital with detached forts, permanently built and armed.

But besides the objection of locking up in these forts the great force necessary to man them, the value of the land would render it vain to think of purchasing sites so extensive. Moreover, forts imply the ability to stand a siege, and London is never victualled for that contingency, and never could be if the command of the sea were lost. What it needs is the ability to protect itself from assault, and to relieve the field army from the necessity of always directly covering it; a condition which must be embarrassing, and would perhaps lead to a fatal extension of our forces.

I would therefore propose the practicable and, to my mind, every way preferable course of designing a line of positions round London. Taking at first the most vulnerable sides, this line might start from Claybury Hill, in Essex on the Roding, to the Thames about Barking;

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thence, south of the Thames, following either the line marked by the heights of Plumstead and Shooter's Hill, to Bromley, or, if it were judged necessary to preserve Woolwich from the chances of fire, the more forward front of Erith, Dartford, Chislehurst, Bromley, and on by Beckenham, Upper Norwood, and Wimbledon to Kingston Hill, from whence the Thames would be the front of defence to Kew; thence, north of the river by Acton, Willesden, Muswell Hill, Tottenham, Woodford, to the completion of the circuit at Claybury.* Within this circuit, of some fifty miles in extent, positions must be chosen, each including a group of roads leading upon the capital from a possible landing-place. Now it is not to be supposed that London would ever be attacked all round at once. The troops of the sides unattacked—presumably the northern and western—would therefore be available as reserves to the rest. On this basis 60,000 men might defend London. It is essential that the troops appropriated to this service should have their headquarters within, or very little outside, the circle of defence. Let us see what propor-

* Of course it is not meant that the line of defence should pass through these places, but only that its general course should be thus indicated by familiar names. The actual course of the line must be laid out on the ground in accordance with the opportunities for defence which it presents.

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tion of this number is made up by corps now existing who fulfil this condition.

Thirty-six battalions of Volunteer Rifles have their headquarters well within the line, mostly in London itself; these number 25,000. Two of the Essex battalions, numbering about 1300, are also within it. The London division of Artillery Volunteers is 3300 strong. This force of artillerymen would suffice for the 160 guns (forty-pounders), which would amply supply batteries for the positions. But the infantry would need to be considerably supplemented. It is no peculiarity of the present plan, but common to all schemes for the defence of London, to require that a large force shall be available for that purpose only. My estimate is far below others when I take it at 60,000 men. This would involve the raising of 30,000 fresh Volunteers within the circuit, which, with those already enumerated, would form the guards of London. I believe that the universal encouragement and stimulus which the general scheme set forth in this paper would give to the Volunteers would render the addition of this number to the London division quite feasible. The Engineers of the defence would play an important part; the Middlesex and Tower Hamlets Engineer Volunteers number 1400; the great

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building contractors and their workmen, who would be thrown out of employment by an invasion, should be enrolled in addition; and the whole force of this branch should be appropriated to parts of the line, and should practise exactly the works necessary for the defence of those parts—the shelter-trenches, field-works, preparation of buildings and streets—as previously planned by those charged with the scheme of defence—so that, when occasion should arise for executing what was already completely designed, every company would know and fulfil its own share.

I do not, of course, pretend that this force of 60,000 would be nearly sufficient to surround London with troops. But, as already said, it is not to be supposed that this could ever be necessary. A position from Claybury Hill to the Thames near Barking, six miles, would, when duly prepared, be amply furnished with 20,000 men and sixty guns, and would bar the approaches from the Essex coast. Another position (the longer of the two before indicated), from the Thames below Erith, by Dartford and Chislehurst to Bromley, nine miles, would close all the roads to London from an invader landing anywhere from the mouth of the Thames to Hastings, and this line could be held by 30,000 men

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with ninety guns. Thus our most vulnerable sides would be at once secured, with 10,000 men still in reserve. Again, if the invasion, altogether south of the Thames, were to embrace the coast-line from the mouth of the Thames to Chichester, the same troops, with the remaining 10,000, would continue the line from Bromley, by Norwood and Streatham, to Tooting. The line of defence from before Wimbledon, by Kingston Hill, to Kew, on a curve of nine miles, would bar all advance from an area of invasion between Southampton and the Land's End. By the employment of these London guards on the front or fronts menaced, not only would the metropolis be secure from such bodies as might evade the field army, but the main body of the invaders, after breaking through the field army, might be held till our forces could again combine against it. Moreover, there would then be no need for our field army directly to cover London, and the advantage of basing it on some other point would be easily demonstrable. Thus, based on Portsmouth, and posted across the Brighton Downs above the river Arun, it would oblige an invader landing near Brighton to wheel round to attack it, when, if the enemy were decisively defeated, he would not regain his landing-place.

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In making themselves acquainted with the intended positions, the Volunteers should also occupy thoroughly designed lines of outposts.

Returning to the general subject, it is observable that the Volunteers are not always most numerous where most needed. Thus in Scotland there are 45,000, and in the Midlands of England more than 20,000. This, however, would suit the general scheme very well, for this last-named 20,000 could join the field army as the reserve of the battlefield; and the routes of all its corps, from their points of assembly to their places in the rear of each position of the field army, should be laid down. Scotland would certainly be able to reinforce this reserve with 10,000 men, while continuing to guard her own ports and coasts. But a more serious feature of the case is, that the counties most exposed to attack are very far from being the strongest in the numbers of their Volunteers. While Manchester, for instance, supplies nearly 8000 and Derbyshire 3500, Essex has only four battalions, two of which have been assigned in this scheme to the defence of London, while the others would be needed for the forts on the Thames; the East Kent corps at Woolwich and Blackheath would also be needed for river defence, leaving only the 2100 West Kent for

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the field in that great and exposed county; Sussex has only 1600, while the Hampshire force would only serve to man a few of the works of Portsmouth. I would therefore point out the expediency of increasing the Volunteers of Essex, Kent, Sussex, Hampshire, and Surrey (most of the Surrey corps are in London), till each should make up its quota of the field army to at least 5000; that is to say, that the total additional numbers contributed by those five counties should be, say, 22,000. These, with the regular active force, the regular reserve, the militia and its reserve, and the Yeomanry, supported by the numbers already computed as available from Scotland and the Midland counties, would at once enable us to confront an invader, in the field and in fortresses, with a most sufficient army, while guarding London with its separate force. And it is easy to imagine circumstances in which a large proportion of the rest of the Volunteers would be free to reinforce those in the field. I am assured that nothing is needed but the feeling that they are a reality to induce the Volunteers generally largely to extend their term of service, so that the recruits, who come in plenty, would be in augmentation, not in replacement; while the passed men might be induced extensively to re-enrol themselves.

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I will here endeavour to give an approximate estimate of the expense which the proposed measures would entail. The field equipment—valise, water-bottle, haversack, mess-tin, great-coat, infantry leggings, and a pair of boots—of each Volunteer would cost £2, 1s. 6d. per man at regulation prices. If summoned to the field each would bring his own blanket, for which an allowance might be made to him. This rate, for the existing force, would amount to £442,000. The 52,000 additional Volunteers would cause an addition of £107,000.

The strategically placed magazine and store centres might be thus assigned: north of the Thames at Willesden, Highgate Junction, and Stratford in Essex; south of the Thames at Wimbleton, Croydon, Woolwich, and Chatham. Plenty of accommodation exists at the two last-named places; there would thus be five centres to provide for. Each of these should have a magazine to hold 300 rounds for sixty guns, with a shell-store, and a store for field equipment, as tents, &c. To lease the site, and construct these buildings, may be estimated at £25,000 a centre—£125,000 in all. Small magazines, gun-sheds, and drill-sheds at such headquarters of corps as do not already possess them, say £100,000. Still better, perhaps, might it be

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to rent existing buildings for the purpose. A year's work on the general plan of defence (and a year might go far to finish it), with a staff of thirty to forty officers and a sufficiency of draughtsmen, might cost £25,000. Total, in round numbers, £800,000. Thus a grant of a million would leave a large margin with which to indulge any liberality towards the force that might seem most expedient.

The force cost the country last year £570,000, about £2, 13s. a man. The projected augmentation of numbers would cause, at that rate, an increase of £138,000 in the annual expense.

It is desirable that the nation should awake to a sense of the force it possesses, and which might be such a power for defence. I am confident that most readers will be astonished to find what a weapon we hold, and what we might achieve with it. I can only regard it as a piece of good fortune that would have been incredible if not real. Self-formed, and springing from the ranks and the will of the people, it is more than commonly secure from the operation of crotchets and mal-administration. In endeavouring to complete its efficiency I have suggested nothing which would not make us a large return for a small outlay. We might make a beginning at once, and so give the

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world a much-needed assurance that we are a practical people capable of opposing the evils which threaten us. It is the fashion to call our navy our first line of defence; but this refers only to material means. Our first line of defence should be the respect of Europe.

The foregoing paper was published in the *Nineteenth Century* in March 1885. On the following 17th April it was read at the United Service Institution, and discussed; and the number of officers who desired to take part in the discussion was so great that it was continued on the 22nd and the 28th of April, eliciting a large amount of information and opinion, which is recorded in the journal of the Institution.

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II.

THE VOLUNTEER FORCE.

(*HOUSE OF COMMONS, MARCH* 22, 1886.)

In the House of Commons on the 22nd March 1886, Colonel Howard Vincent, a well-known officer of Volunteers, on the motion for going into Committee of Supply, moved as an amendment, "That for the thorough efficiency, maintenance, and development of the Volunteer force, an immediate increase in the present capitation grant is absolutely and urgently necessary."

The following reports of speeches delivered on that day appeared in the *Birkenhead Advertiser*.

GENERAL SIR EDWARD HAMLEY, in supporting the amendment, said:—Sir,—I beg permission to make a few remarks on the present question, from the point of view of an officer who is no otherwise connected with the Volunteers than in having carefully examined into the conditions of the force, and having thereby acquired a strong interest in it, and a profound conviction of its inestimable value to the country. And I propose to make only the shortest demand on

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the attention of the House, for the question is so limited that it does not admit of an extended treatment. It will be sufficient to ask leave to state why I attach such value to the force, and why I consider the increase in the grant to be necessary to its existence. In the Volunteers we have nothing short of a great defensive army, and one that, if it received a little more of generous aid, and a little more of that public interest in its affairs which is so necessary to the prosperity of any institution in this country, would become capable of meeting an equal force of Continental troops, if such were landed on our soil. I do not mean to assert that it is now efficient to that degree, but that it is capable of easily and surely becoming so. And an investigation which I had occasion to make last year led me to conclude that of all the forces—regulars, militia, and Volunteers—which would be probably available for defence in case of invasion, the Volunteer army would constitute two-thirds. According to the present estimates, its efficient members cost the country last year about sixty-three shillings each. If one of the great Continental Powers had found itself, by any strange piece of good fortune, in possession of such a force—so cheap, so capable of becoming formidable, and so dependent for its existence

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on the will of its individual members—we may imagine how sedulously that Power would cherish and foster it, how it would study to render it thoroughly efficient and thoroughly contented. Of course it is impossible that a Volunteer army should exist in a state where conscription prevails. The two are incompatible, and in one respect at least the advantage is enormously on the side of that voluntary system which reaches its full development in our Volunteers. It has long been a belief among the people of this country, especially those who wish to compare the cost of our own with that of other armies to our disadvantage, that a conscript army is at least a very cheap one. This is a delusion. It is a terribly costly one. To point to the smaller expense of its pay and maintenance affords no index of the total burden it inflicts on the nation. It takes the best of the youth of the country from the labours of the field, the workshop, and the desk, and forbids them, during the most active period of life, to contribute anything towards the wealth or the productiveness of the nation. It is in this way that huge conscript armies almost press the life out of foreign states and render existence a burden to their populations. But our

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Volunteers cost the State nothing beyond the sum I have mentioned. They first do their duty as citizens, and then give the hours which might well be hours of recreation and repose to learning their duty as soldiers. And this they do so thoroughly and in such an excellent temper that only the smallest percentage fail to attain the prescribed standard of efficiency. Their military spirit is good; the stricter the discipline of a corps the more cheerfully is it submitted to—the officers are very intent on learning the duties and acquiring a scientific knowledge of their profession. Lastly, from all we see of its qualities and its character, it may be relied on to be always on the side of law, order, and good government.

This body of citizen soldiers which I have endeavoured briefly to describe, which the nation has uncommon reason to be proud of, and which, for my own part, I can never contemplate without wonder and admiration as a national force which no other country does or can produce, has always led a struggling existence. On the theory of the survival of the fittest, it must have been very fit to have survived so long. I don't know whether any Ministers have ever bestowed on it any gracious words; if so, they have given it very little else. The

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men whom we see carrying their rifles to the practice-ground have supplemented out of their own pockets the Government allowance of ammunition ; they have paid some of their own travelling expenses ; they have subscribed towards the maintenance of their corps—so have the officers, on a more considerable scale. I have a letter (one of many) from a commanding officer of a corps well known to me, who says he has spent several thousands out of his own pocket on his corps, which he can no longer continue to do, and he adds that never has the prospect of maintaining the force looked so gloomy—that it is difficult to procure officers on account of the expense.

It is, then, at a serious crisis in its affairs that we now appeal to the House and the nation to bestow on themselves, rather than on the Volunteers, the great, the incalculable benefit of preserving the force to the State—of not allowing it to fade and die out from mere inanition. I would ask hon. members to consider what our condition would be without this home army—to consider what an influence its presence among us, if it were, as it might be, thoroughly prepared for war, would exercise on the designs of powerful enemies—to consider too the strength our Government

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would derive in its dealings with foreign powers from a sense of security at home. I know that there are honourable members opposite who profess to regard invasion as a bugbear, and who are always ready to vote away army, fortifications, and defences of all kinds, in their ardent desire to conciliate the tax-payer, who is also an elector. But those who must be supposed to be able to judge of a military question know that invasion is a very possible calamity, disregarded only because it has not yet happened in our time. Napoleon not only contemplated it, but had matured his preparations for an immediate landing, which were baffled only by the skill and fortune of Nelson. The facilities of invasion are far greater now than in Napoleon's day; while, as for the precautions which this rich country takes to protect its riches and itself, it is probable that the army which King Harold marched to Hastings was better qualified to keep the field than any proportionate force we could at this moment bring against an invader. And what a rude awakening would successful invasion, however temporary, bring! Empire and liberty and self-respect,—our lofty aspirations and our great pretensions,—England, as the home of freedom, and Britannia as ruler of the waves,—would all vanish

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in the smoke of an enemy's camp. Even the Treasury Bench itself, "yea, all which it inherit would dissolve, and leave not a wrack behind." It is in order to take a considerable step towards averting such a catastrophe that this modest increase in the capitation grant is now asked for. If, by such slight means—means which the most rigid economist might well vote for, which even the most determined opponent of our regular army need not refuse—we can succeed in arresting the ebb-tide in the Volunteer movement which has long set in from long neglect and slender encouragement, never will money have been better laid out than in preserving that home army which must always be an indispensable element in any measures of national defence.

Mr. Gladstone rose immediately after General Hamley had concluded. He sprang to his feet and delivered a violent speech in opposition to the amendment, declaring that it was not the province of the House of Commons to propose any increase on estimates submitted by the Government. Other Ministers might be found who would agree to such increase, but he would not. Ultimately the amendment, by the aid of thirty-nine Parnellites, was defeated by only twenty-one votes—187 to 166.

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In the House of Commons, on the same day, Mr. W. H. Smith, First Lord of the Admiralty under Lord Salisbury's Government, brought under notice the necessity of protecting coaling stations abroad, mercantile harbours and military ports at home.

Sir Edward Hamley in supporting the observations of Mr. Smith, said:—When the national defences are in question I willingly concede the first place to the navy. But our home defences form a branch of the large subject of imperial military defence which does not yield in importance to any other, and on this I venture to offer a few observations. I will begin by observing that there are two points on our southern coast on which our fleets are absolutely dependent, and to lose which would be to imperil the continued existence of our navy—I mean, of course, the great naval arsenals and dockyards at Portsmouth and Plymouth. Nor is their importance limited to their uses to the navy. They have also a high military significance; for, in case of invasion, so long as we held them they would form powerful supports of our army in the field; and, on the other hand, should the enemy gain possession of them it would increase enormously his chances of conquering the island. Portsmouth and Plymouth are, then, the

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very apples of our eyes. This fact has, of course, been recognised for long, and with this result, that a very considerable amount of money was laid out many years ago on works for their defence. When those works were constructed they were sufficient for their purpose. But since that time artillery has made such progress, leaving fortifications far behind, that these works are no longer reliable for defence. Things have come to pass which would formerly have seemed miraculous. Modern guns hurl what are not so much shells as loaded mines, for many miles through the air, dropping them with wonderful accuracy within a small area, and ensuring their explosion there. By such missiles the magazines of the Spithead forts, formerly bomb-proof, are now penetrable, and I need not describe the effect of one great modern shell exploding in a magazine. And Plymouth, which under former conditions would have been protected from a naval attack by its existing batteries, is now open to bombardment by ships out of the range of those batteries and concealed by obstacles from their view. Several foreign ships of war now in commission are capable of destroying the masonry protecting the magazines of the sea-forts.

It will be seen, then, that the works, no

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longer fulfilling their purpose, demand renovation. But that is not all which is to be said of them. Nearly all the works of Portsdown Hill, which are part of the defences of Portsmouth, and the land defences of Plymouth are without artillery. Their deficiencies in guns are to be counted not by the score, but by the hundred. These works, completed a dozen years ago, have presented for that period a most astonishing spectacle. By what phraseology is it possible decently to describe the course of those who erect costly works for the defence of the kingdom and then leave them unarmed, and therefore as useless as if they had never been built? As far as I can discover, no provision is made in the estimates for remedying these deficiencies in the least degree. I have no doubt that a great number of honourable members will agree with me that this is a most perilous absurdity, a blot on our national common-sense, as well as on our prudence, which cannot too soon be removed.

But honourable members must not think that in disapproving the course followed they get rid of their responsibility. I trust they will see fit at the proper time to give their feelings practical effect. I am aware that some honourable members may have to encounter the prejudices of their constituencies. I was myself held up to

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reprobation by the Radical journals of my neighbourhood for desiring to spend money on what those sages of the press were pleased to call "useless defences." But as I am not a Radical, this did not greatly concern me. I can, however, feel for those members who are Radicals, and on whom pressure of this kind is brought, and I appeal to their patriotism to resist it. The military ports are only a part of the subject. We have great and famous commercial ports absolutely without defence, and liable to destruction by means easily at the command of a sea-power. I will only specify as examples the ports of the Tyne, the Clyde, and the Mersey. All these have a high degree of commercial importance; they are ports where our ships would refit, and two of them are main channels by which this country, so inadequate to the production of its own sustenance, receives its food.

Now, some excellent work was done last year in providing for the defence of these rivers by submarine mines, one of the late developments of warfare. Submarine stores were accumulated, necessary buildings erected, and the Volunteer Engineers resident on the banks of these rivers were instructed by the Royal Engineers in the management of the mines. But these mines demand, as a necessary sup-

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plement, the protection of artillery, and that artillery must be placed in defensive works. The only river that is in the smallest degree protected by guns is the Mersey, on which there is a battery, but so inadequate that an enemy's ships, keeping out of its range, could shell the docks, which have extended far outside Liverpool down towards the sea. I do not think it necessary to weary the House with examples, and will only remark that many other ports exist on our coasts which, for various reasons, call urgently for defence, and that the capitals of Scotland and Ireland would be open to attack, being easily approached, and would offer tempting objects to an enemy. Now this is so far not a party question that successive Governments have recognised the pressing necessity of making provision for our home defences. The responsible authorities have, year after year, for the last eight years, called attention urgently to the subject. The Secretaries for War whom they addressed have sometimes briefly bewailed the sad necessity of postponing measures so vital and so urgent; at other times they have carried matters a step further by appealing to the Treasury. But according to concurrent testimony, the Treasury, strange to say, does not appear to be a depart-

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ment from which to expect money. It is a department from which rather to expect the refusal of money. If other departments like to amuse themselves by drawing up elaborate estimates, supported by pressing arguments, the Treasury does not seem to object to that course, which affords the opportunity of exercising its special function of cutting those estimates down. These amputations appear to admit of no kind of discrimination—the word goes forth to shear off so many millions to fit the exigencies of the Budget, and the thing is done. The grand type of a Treasury official is Procrustes. The proposals made on those occasions by the War Office have generally taken this shape—the total sum required for works and armaments has been calculated, and then divided so as to extend over a series of years—usually five. Accordingly, in order to make a beginning now for the completion of the works in five years, a large sum should have been allotted to that purpose in the present estimates. But what do we find?—that the total sum now allotted to the purpose is £10,000, and that is given altogether to the Tyne; so that the defences of all the other ports is again put off indefinitely. Thus it is in vain that works and armaments are estimated and approved when

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they can be annihilated by a stroke of the pen. It is in vain that the Defence Committee plants and the Secretary for War waters, when in a moment the Treasury can step in and stop fruition. Thus it must be evident that no reliance can be placed on endeavours to provide for the national defences in the annual estimates. They have been but too consistently frustrated. A sound policy would therefore aim at placing the financial basis of any scheme of imperial military defence on such a footing as to secure it from being rendered null and void by any particular Government which may be tempted to sacrifice the security of the Empire to its temporary needs.

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III.

DEFENCES OF THE EMPIRE.

(*HOUSE OF COMMONS, MARCH* 14, 1887.)

SIR EDWARD HAMLEY (Birkenhead), who had the following notice on the paper, "That there is urgent necessity to set in operation a complete system for protecting this country from an enemy's enterprises, and to provide for it financially by means more adequate than are to be found in the annual estimates," said:—I am going to venture to call the attention of the House to the defences of the kingdom, and in doing so I may be allowed to observe that the Memorandum just put forth by the right hon. gentleman the Secretary of State for War (Mr. E. Stanhope) appears to me the most satisfactory statement of the kind that has been issued in my time, for it recognises the necessity of a complete scheme of defence, and implies an intention to provide for it. In dealing with

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the subject I should like to begin by conciliating possible objectors. Many hon. members regard all proposals for an increase of our armaments with distrust, as in their minds tending also to increase the probabilities of war. I wish to assure them that I will deal only with matters absolutely and purely defensive, which, far from increasing those probabilities, would tend to diminish them by lessening the chances of invasion, for the most formidable enemy would think twice before invading a prepared Great Britain. I would also ask those hon. members, who attach to all military plans a bellicose and provocative character, to believe that officers who occupy themselves with measures of defence must be actuated by the desire to preserve the people of England from those very evils which the most peace-loving of our citizens desire to avert.

We have lately heard proposals from a very influential member of the House to cut down expenditure by the simple method of making it conform to the standard of some former year. But I would remind hon. members that material of war is becoming every year more and more costly, and also that when expenditure on necessary armament has been for a series of years less than it ought to be, there will inevitably come a

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time when it will look greater than it ought to be. Therefore, endeavours to rule present and future expenditure by the standard of the past are absolutely irrational and fallacious. The situation, then, as it impresses itself on my mind, is this—a small island on the one side, a whole continent of possible enemies on the other; the island having a coast-line which offers to the enemy many imperfectly defended ports and numerous favourable landing-places, and opposite to it impregnable harbours, where fleets can assemble and whence invading armies may issue; the island with a large population indeed, affording plenty of willing defenders; but these, for the most part, so imperfectly equipped that they would be absolutely unable to take the field even for a few days; and even when they sent forth an expeditionary force, it could only be made complete by pulling to pieces the regular forces left at home; while opposite we see the continent absolutely swarming with conscript armies burning for action, kept at all points fit for immediate war in equipment, in training, in organisation, in transport, in means of concentration—the fact that each is always in presence of tremendous antagonists binding all under the heaviest penalties to maintain themselves in the completest readiness for

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action. And when we remember that this island contains immense wealth, and that that wealth would be looked on by the enemy as the legitimate reward of victory, it is no wonder that the situation inspires many experienced soldiers, many experienced sailors, and, I may add, some experienced War Ministers with absolute dismay. Economists argue that because England has never been invaded in our time it never will be. I am not aware that the Bank of England has ever been broken into in our time; but that is no reason why the directors, while continuing to pour gold into their cellars, should dispense with bolts and bars and police.

Now, if I refer for a moment to the navy—which I do with great deference to the naval members of this House—it is because, it being often and justly styled our first line of defence, that phrase is taken to mean that it could be relied on for the defence of our coasts. But experienced sailors and other naval authorities have lately assured us that its many imperial duties would not leave it to be relied on for this task, and that such an alliance of Great Powers against us as we often hear talked of might well deprive us for a time of the command of the Channel. It was for such an opportunity, and for that alone, that Napoleon was waiting in

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1805, when it is to be noted the naval power of England was at its height. His army of invasion was ready at Boulogne—transport and flotilla prepared for instant embarkation; all that was wanted was the presence of the French and Spanish fleets in the Channel for a few days, when a powerful army, commanded by Napoleon himself, would have descended on our shores, and nothing but a series of fortunate events, leading to the victory of Trafalgar, prevented this plan from being realised. We must, then, take it for certain that if we are to be secure we must render our coast independent of our fleet; and I now turn to the question of insular defence, which may be considered as of two kinds—first, the means of repelling an enemy's ship from the coast; secondly, of opposing an invading army. So dependent are we on our communications with other lands, that it is difficult to say which of our many great ports we could lose without sustaining vital injury. But the great military ports having dockyards and arsenals are of prime importance. It is on these that our ships of all sorts must rely for secure harbourage against an enemy superior at the moment. And as soon as our fleets are at sea, it is on these ports they must rely for indispensable supplies of all kinds. It is to them disabled

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ships must look for repairs; it is in them new ships must be built to replace the waste of war. They are, then, indispensable to our navy.

On the other hand, should an enemy seize one of these ports, imagine what a footing it would give him for invasion, with a safe harbour in which to land his troops and material, on which to rely for supplies of all kinds, and in which to mature his plans before marching on London. A generation ago the Government of that time (Lord Palmerston's) was aroused to a sense of our weakness, and fortified the most important of these ports against the ships and artillery of that time. But ships and guns have since made progress at a fabulous rate; so that now, while the works then constructed might be ruined by the armament of some foreign iron-clads, we have not, so far as I am aware, a single gun mounted on the works that would pierce the armour of a first-class war-ship. Since those times, however, a new kind of defence has been devised—that of torpedoes and submarine mines; and these are in course of being applied very completely for the defence of our ports. Placed under water at certain points and in sufficient numbers, and exploded by electricity from the shore, the mines would inflict ruinous injury on the most formidable ships. But in dark nights

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or fogs they are, of course, less to be relied on; and it is a regular branch of naval tactics to send light craft to destroy them or nullify their effect. Consequently, these defences require themselves to be defended, and the appropriate means are found in light, quick-firing guns, and machine-guns to fire on the light craft. But if the ironclads could stand in with impunity, they would crush these light weapons with their huge shells. Therefore, in order to keep them off it is necessary that the defence should possess guns capable of piercing the armour of first-class war-ships.

Here, then, we have all the requirements—the submarine defences, the light artillery to protect them from the boats, and the heavy artillery to keep off the ironclads. What is needed is artillery of the kinds mentioned, and suitable forts to hold and protect it. Now I would not convey the idea that, because we are still unprovided with guns and works, the officials, whose business it is to provide them, are in fault. They have, one and all, for years been persistent in their representations. Indeed, considering the great interests involved, it is almost pathetic to read the remonstrances uttered by these War Office officials and War Ministers and their reception by the Treasury.

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Scarcely inferior in importance are our great commercial ports, on which we rely not only for the maintenance of our trade, but for the means of feeding our population. Setting London aside as of a paramount importance that we all recognise, what would be the effect in this country if the telegraph should announce that a hostile battle-ship was approaching Liverpool? Should its enterprise be successful, should it with impunity set on fire or hold to ransom that great city, the example would inspire incessant depredations on our coasts; while, on the other hand, the sinking of a hostile ship or two in such attempts would be a warning that the enemy could not afford to neglect.

Now, such of these ports as are situated on rivers or estuaries are more easy to defend than those which lie open to the sea, and which might, therefore, be bombarded at long range. It is very satisfactory to know that our chief river-harbours are being now put in a condition of submarine defence; but it is still necessary to supplement that kind of protection with artillery, generally by guns placed in earthworks. Some ports, like Liverpool, have expanded so greatly towards the sea that they are now within range of ships. Therefore, the chief requisite—though in less degree than for the

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military ports—still is light artillery, to protect the submarine mines, and armour-piercing guns to keep off ironclads. These guns might, according to circumstances, be placed in existing works, adequately strengthened, or in earthworks on commanding points, or in floating batteries. In fact, I am certain that the statement of our exigencies by those whose business it has been to consider these matters will confirm my view, namely, that our requirements are mainly limited to guns of the classes I have named, and to sufficient works in which to place them. Now, the estimate of costs of guns, of completing the submarine defences, and of the works for the whole system of military and commercial ports throughout the kingdom is, in round numbers, under £5,250,000. With respect to the question of cost, it seems to me well worth consideration, whether the great ports whose property and trade and the safety of whose inhabitants these measures were designed to secure might not, on due appeal, see fit to contribute to the expenses. It is true that the question is a national one; but they have the paramount interest in it, and by taking a special part in their own defences the necessary works could proceed simultaneously, and be all the more acceptable because giving large em-

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ployment to labour in their respective localities.

Another consolation is afforded by the fact that the project of defence is no hasty scheme inspired by panic, but has been long and carefully considered by experienced officers, and that nothing but money is wanting in order to begin at once to put it in execution. And there is yet another circumstance which may bring us comfort. We are often told that when implements of war are undergoing constant changes, so that the weapon or the ship of one year was obsolete in the next, it is not worth while to provide ourselves with them till finality shall be reached. The argument, although fallacious, as tending to render our armaments inferior to those of Powers which keep abreast of the times, is easily turned to powerful account. But what I would point out is, that finality is, in an important particular, now in sight. For it is evident that if ships are to keep the sea and to possess high speed—both indispensable requisites in war-ships—there must be a limit to the weight of armour they should carry; and if the limit is over-passed, they become means of destruction, not to the enemy, but to their own crews. That limit must now be nearly, if not quite, reached, so that the armour-piercing

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guns of to-day will remain permanently effective, and we need not hesitate to provide ourselves with them.

And, finally, I would point out that in a competition in defensive strength between ships and shore-batteries the batteries can always be made stronger than the ships, and can also be provided with appliances for screening the guns, which a ship does not admit of; and we may thus feel confident that we can render our military and commercial ports absolutely secure if we choose to set about it. I now come to the question of our internal defences against invasion—that is, the army with which we could meet an invading army; and I conclude that every one will agree that, if we have an army at all, it should be sufficient for that purpose. We may remember that no less influential a person than the noble Lord the member for Paddington (Lord Randolph Churchill) suggested that we should dispense with costly defences, and rely on a substitute of unparalleled cheapness—our "undying historic memories." It is unfortunate that the only historic memory applicable to the case should be our subjugation by William the Conqueror. But however that might be, I can imagine the perplexity of a hostile army, landed and looking to be met with a storm of shot and shell and a

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forest of bayonets, on finding itself confronted only by "undying historic memories." I am inclined to think that, on recovering from its pleased surprise, it would resume its march upon London, while we, on our part, would have to console ourselves with the advantages which the noble Lord says our refusal to spend money on armaments will have secured to us, namely, cheap beer and tea and tobacco, and an income-tax still not exceeding 8d. But I fear the beer and tea and tobacco would be for the refreshment of the enemy, who would also undertake the control of the income-tax along with all the rest of our national revenues. Happily, we have something more substantial to rely on. In conjunction with the regular forces in the country, the militia and Volunteers form an immense army, fit in numbers and in quality of men to oppose any armies which could land on our shores. But those armies would consist of trained and disciplined troops, while our auxiliary forces can give only a fraction of their time to military exercises. Moreover, they could not take the field for want of equipment. The first step is, then, to equip them. Supposing them to be as complete in field equipment as the regular army, there are circumstances which would be much in

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favour of our national troops defending their own soil against even a professional army which crossed the sea to attack us. In the first place, we may be prepared beforehand to such a degree that it may almost be said every soldier would know his own place in the system of defence. For in Great Britain we have a very compact and not extensive theatre of war, in which the points at which an enemy could land and the groups of roads by which he would march inland are all ascertained, as are also the positions in which in each case the field army could be concentrated to oppose him. And troops can act efficiently on the defensive with much less training than if they had to manœuvre and attack. After being trained in their own exercising-grounds in the construction of hasty entrenchments, such as all troops are expected to assist in making, and in the occupation of them for battle, they could, in the place of the present annual exercises, rehearse what would be their part in case of war—whether the defence of their own particular section of coast-line, their share in a pitched battle, or the duty of garrisoning fortresses. For instance, it being known beforehand where a battery would be placed near the coast for the defence of the Mersey, the Lancashire Volunteers might be

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trained in occupying ground for the defence of that battery against troops or seamen landed to attack it. Again, the line being known beforehand of a position, say in Sussex, to oppose an invading army coming from Brighton, the troops to form the field army, being all assigned to their corps in it, might be encamped in their places for their autumn exercises in the parts of the line they would occupy. And, lastly, all the troops destined to garrison the fortresses in their own localities—those of Devon and Cornwall, for example, for the defence of Plymouth—should, as a regular annual exercise, form the actual garrison of that place for a time sufficient to make them thoroughly acquainted with their duties. That is specially necessary for Volunteer and militia artillery, who would thus become familiar with the many appliances, the magazines and stores of all kinds, and the actual guns—and that is most important—which would be in their charge in resisting an attack. And whatever bodies of artillery are disposable for coast defence or for the field army should receive at once the guns—and practice with them—which they would use in the field. A step has already been made in that direction, with the best effect, in giving the Volunteer Engineers who are located on the

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banks of our great rivers an important share in taking charge of and working the submarine defences of the neighbouring ports. Besides thus assigning the troops to their own ground, we should possess another kind of advantage; for while an enemy must bring everything with him—horses, forage, provisions, transport—we should possess ample supplies of these all over the country, and by keeping a constant register of them — horses, waggons, waggoners, and forage—in each district, they would be always available on the shortest notice.

We have already gone so far as to make considerable progress in a military study of the country by instructed officers. That should include the registration I speak of; and also the precise use of every road and portion of railway for any intended concentration should be laid down beforehand and exact calculations of all movements prepared. Such matters would, in my opinion, be best entrusted to a specially selected staff under experienced direction, and their work might be periodically submitted for approval to a military council, also specially selected. Besides men and material and equipment, there would still be another matter indispensable to the efficiency of our field army, and that is the building of stores

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and magazines at points where they would be ready for the supply of the troops with equipment and stores and ammunition and guns when taking the field. In this way the whole scheme of operations for our home army might be laid out in all its particulars; and what would else, on the approach of an enemy, be a scene of hopeless tumult and confusion would become one of orderly and prompt action. And as nothing so demoralises troops as apparent want of purpose in those who direct them, so nothing gives them such assurance of victory as to see that all their movements are tending to the execution of a well-considered plan. And, in the meantime, the immediate effect on the auxiliary troops themselves could not be but most encouraging—every one would know and feel that he had certain duties, and that he was fitting himself to perform them, and a Volunteer, instead of that somewhat vague entity which he now feels himself to be, would know that he had a distinct part in that design of defending the country for which alone the Volunteers were called into existence.

Lastly, in all schemes of defence it is necessary to secure the safety of London by forces independent of armies in the field, so that no hostile corps suddenly cast upon the coast for

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the purpose, or which should have succeeded in evading for the moment our field armies, should be able to clutch us by the throat, a move which might be itself decisive and bring us to our knees. The plan I advocate to prevent this is the most inexpensive, and, I will add, the most easily practicable that has yet, as far as I know, been propounded. It is to raise the Volunteers of London from 25,000 to 60,000, and to train them specially for its defence—by laying down the positions which they must occupy on any side threatened, in order to keep an enemy at arm's-length—and to give the London Artillery Volunteers, already sufficient for their purpose, the requisite number of guns of position. Thus a line north from the Thames at Barking would bar the approaches from the Essex coast; one by Erith, through Chislehurst to Bromley, would close the approaches from the coast between the mouth of the Thames and Hastings; other positions would complete the circuit around London, and the capital would be secure against a sudden rush from any side. And these guards of London would always be kept instructed and prepared for this service of its defence. I calculate that all these steps necessary to put our national forces in this condition of defence—

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the equipment, the leases, and construction of all magazines and stores, the execution of the military plan of defence, and the raising of certain additional Volunteers, especially artillery—for they are not always most abundant in the localities where most needed—would cost less than £1,000,000.

I have now, in as few words as I could employ, endeavoured to place before the House the requirements for home defence. I have spoken only of Great Britain, because I wish to confine the first view of our defences to what most nearly concerns us, what is most vital, and what can be most easily taken in at one view. It needs no words of mine or of anybody to enable hon. members to imagine what weight and consideration we should derive in the councils of Europe from a recognition of the fact that this island was practically impregnable. Many plans of invasion now reposing in many foreign war bureaux might then be torn up. Commercial enterprise of all kinds would, I imagine, receive a fresh impetus from the feeling of security against recurring panics. And all this might be realised for the sum I have stated—that is to say, in round numbers, £6,250,000. It may, perhaps, be asked why so small a sum could not be spread over a term

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of years, and provided for in the annual estimates? I answer, first, because that plan has been so often found a total failure. As an instance, I may quote that the defence of our commercial ports was provided for in this way —the cost was to be spread over five years; last year was to be the first of those years, when £100,000 was to be taken for the purpose in the estimates as the instalment of that year. What was the result? The sum was cut down in the estimates to £10,000. If this work was to be done by means of the annual estimates, then if it were ever done, of which I am seriously doubtful, it would be certain to be spread over a period vastly in excess of that originally estimated for. I would ask, then, that it should be raised by a loan, and set apart for the purpose intended, and for no other, and thus made secure from the exigencies and temptations of the Budget. Another advantage would be, that the work might proceed at once all over the kingdom, and be finished in a comparatively brief time—two years might see it accomplished; a period surely long enough for us to remain with our defences incomplete.

Also, in considering the comparative smallness of the sum, I would point out that it is only a part, though a vitally important part, of

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the imperial scheme of defence. The defence of Ireland must be provided for when the proper time arrives, and of the Colonies also; the coaling stations are already in progress, but that progress might be greatly accelerated by including them in the loan; and notwithstanding the progress of the navy, the Admiralty would not object, I presume, to be endowed with the financial power to raise the fleet to its proper pitch. And it must be remembered that, of all modes of expenditure, the various defences of the kingdom are the most satisfactory, as at once giving a vast impetus to employment at our great centres of population. This plan of a loan has already been tried on former occasions with success, and on occasions, I may say, not comparable in urgency to the present crisis. There is, then, no novelty in what I propose, nothing which has not already been agreed to and found to answer. We should thus have a guarantee against the tendency of all Governments in this country—a natural tendency, but one nevertheless very dangerous—to be so solicitous to discharge their duty as guardians of the public purse that they are apt to neglect their other duty as guardians of the public safety. From this cause, and also because of the vast means of offence which other nations have

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accumulated, we have fallen far below the requirements of our position. We are fond of boasting that we have an Empire on which the sun never sets; but we forget that Empire is a luxury expensive in proportion to its extent, and that the boast would be indeed a vain one if, when the time comes, we should be found unprepared to defend our possessions.

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IV.

THE DEFENCE OF LONDON AND THE COMMERCIAL PORTS OF GREAT BRITAIN.

An Address delivered to the London Chamber of Commerce, at the Mansion-House, London, E.C., by General Sir Edward Hamley, on Tuesday the 19th of April 1887, the Right Hon. the Lord Mayor in the chair.

It was with much pleasure that I received an invitation from this great institution to deal again with a subject on which I had already addressed the House of Commons, and I at once expressed my readiness to comply.

All who believe that we ought without delay to set about the defence of the kingdom must derive a very real satisfaction from the fact that the London Chamber of Commerce takes a lively interest in the matter. Its action must undoubtedly produce a great effect; and if other Chambers in the great cities more immediately concerned should also take the question up in earnest, why I, for one, shall entertain a hope, infinitely better founded than

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I have ever yet caught sight of, that this measure will be taken in hand in such an earnest and practical way as will ensure its speedy accomplishment.

Now, a most satisfactory circumstance in the matter is, that the public are, I think I may say for the first time, beginning to take an interest in the military affairs of the nation. They are no longer content to take their opinions from the rose-coloured orations delivered at public dinners—a class of eloquence which, from whatever source, I would counsel you not to put implicit trust in. I have long thought it most desirable, in the interests of the country itself, that public attention should be directed to the army; and since the power and the influence, and with these the responsibility, of the people have been so largely increased by the late extension of the franchise, it is more than ever to be wished that they should feel a more real and more intelligent interest in the army; so that they may bring to bear on military matters an enlightened influence, strengthening in the best way the hands of those who are charged with our military administration. And to this end nothing can be better than to begin with civilian audiences of the highest class, such as that which I now address, trusting that in a

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brief space the opinions to which they give their sanction may permeate the whole community.

First, I will observe that I have always desired as foremost in measures of defence to see in this land, the land of Nelson, our navy placed in a condition to defy any possible combination of fleets. But this, if practicable at all, must be a work of time. And in estimating the difficulties in the way, let us first look at the present proportion, as compared with other Powers, of the war-ships we possess and the duties they have to perform. The navy list shows that, besides a Channel squadron, we have a Mediterranean, a North American, a South American, a Pacific, a West Africa, an East India, a China, and an Australian squadron. And thus, supposing a great Power to be on anything like an equality with us in what I may call, using an old phrase, line-of-battle ships—ships which would take part in a general engagement and decide which fleet should command the sea—and not to have (as no other Power can have) reason for detaching so many foreign squadrons—it follows that it can retain a force in its own harbours superior to what we can have in the Channel. If you say we can bring our squadrons home for the defence of the

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island, what becomes of the imperial territories which they are specially sent abroad to guard? Thus it follows that the navy is the one element of insular defence which cannot be treated from an insular point of view. It must be treated from an imperial point of view, when we see that we cannot feel certain of maintaining a superiority, possibly against even a single Power, certainly not against a combination of Powers, for the defence of the Channel; and thus that an enemy should obtain the command of the Channel for the time necessary for the transport of an invading army or an attack on our ports is no chimera, but a possibility which may become imminent in case of war.

Take the case of war with France, singly. Many authorities, such as a former Lord of the Admiralty, a late constructor of the navy, and some distinguished admirals, affirm that in first-class ironclads, which would decide a general engagement, France is much on an equality with us; and, having no interests abroad so vital as ours, she could always, for a great object, assemble in her home ports a force equal to our Channel and Mediterranean squadrons combined. But it might not be easy for them to combine; for, from the geographical situation, the French fleet could be between them, and

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could concentrate a superior force, for a time at any rate, in the Channel; and in combination with another Power she would certainly have us at a disadvantage.

We see, then, that great efforts must be made in order to obtain a sufficient relative superiority, even if other navies were to remain as they are. But it is a notable feature of the time that the nations of the Continent are engaged in a naval no less than a military rivalry. Their public money is freely forthcoming for the purpose, and we shall have enough to do to hold our ground; and we must remember that the power of a navy is not in ships only, but in sailors—and in her reserves of seamen France is vastly superior to Britannia, Ruler of the Waves.

We may assume, then, that to render our coast defensible is absolutely essential to security; thus leaving our fleets free to concentrate at those points which naval strategy may dictate.

Our business on the present occasion is with the Commercial Ports. But first let me point out to you that there are numerous very important towns along our coasts which lie absolutely open to an enemy, and which possess no natural features of a kind to render them defensible. Look at Brighton, for instance, stretching along a flat coast opposite which a

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whole enemy's fleet would range itself, and which does not afford harbourage even for a gunboat. Manifestly we must leave such out of the question. And besides these there are some commercial ports, easy of attack, difficult or impossible to defend, unless by means of the navy, and such places do not offer to an enemy that valuable foothold on our soil which a secure and defensible harbour would give him, in which to land his troops and supplies for a campaign. I will therefore only mention those commercial ports which, besides their importance as such, possess defensible features and would be of use to an enemy. I omit also what are called military ports, namely, those which are fortified on other than commercial grounds, such as Plymouth, Portsmouth, Harwich. We find, then, on the east coast, going northward from London, the Humber, the Tees, the Tyne, the Firth of Forth, and Dundee; on the west coast, the Clyde, the Mersey, the Bristol Channel, and Falmouth—the last important chiefly as a harbour for which vessels seeking to enter the channel would naturally make in case of war.

In case of war with Russia, the eastern ports would be specially liable to attack by ships issuing from the Baltic. But the western ports, notably Liverpool, have a special importance,

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not only on local but on national grounds, inasmuch as they are the channels through which the food-supplies from the Western world are poured into this country. We are absolutely dependent for existence on these supplies, to exclude which would of itself suffice to compel us to accept any terms the enemy might offer. And the French make no secret that one chief mode of action against us in case of war would be to attack our trade routes, and to endeavour to bar from our shores, along with our commerce in general, those supplies the loss of which, even for a short time, would reduce a great part of our population to starvation. And the means of attacking on the one side and protecting on the other these trade routes, between port and port, would be swift cruisers carrying guns formidable against unarmoured ships. These would patrol the high seas; and it would be specially necessary that, on a merchant convoy nearing its port, it should not find its way barred by war-ships in the port—that the port should, in fact, be able of itself to repel such.

Of course, the measures to be taken for the defence of ports must be considered in each case separately, with reference to the local conditions. Ports like Sunderland, on the open coast, can only be protected, in any degree, by powerful

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guns or by ships. But natural harbours and navigable rivers, even if they do not afford perfect security against bombardment to the cities on their banks, may always be made effectual for the protection of the trade interests of the port. And for this purpose we now possess a powerful means of defence, unknown to former generations—I mean the system of laying down submarine mines in such localities. This mode of defence has lately reached a high degree of development. Unnoted by the general public, men of science, in conjunction with officers of our scientific corps and of the navy, have brought these extraordinary weapons under an astonishing degree of control. Cases filled with explosives are laid across the channel by which ships must enter. Some are made to explode by the contact of the ship, some by means of electricity managed on the shore. Some rest on the bottom; some are arranged to rise when the ship is over them, and burst close under her. And, doubtless, if ironclads of the first class were to attempt to enter a port so protected they would infallibly be sunk. Therefore they would not make the attempt till they had taken steps to remove the impediments—and this kind of operation has also been made the subject of study. Boats, either those of the war-ships or a flotilla accom-

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panying them, would endeavour to approach the submarine mines generally by night, or in foggy weather, and attempt to explode them prematurely, and if allowed to operate without opposition they would generally be successful. To defeat such attempts several measures are necessary. First, a guard-boat to cruise outside the minefield and give warning of the approach of the boats. Then electric lights worked in the batteries, to render the enemy visible. Then light guns capable of being discharged very rapidly, to fire on the hostile boats. Now, a few months ago a system of mines, and their defences, was laid down at Milford, and a sham attack directed on them by a squadron under one of our admirals, and it is not quite satisfactory to know that the attack was considered by many to have succeeded. It is true there were circumstances to modify the conclusion; the conditions of the sham attack were, of course, in some particulars different from those of a real attack; but it was, at any rate, apparent that attempts of that kind might be made with fair promise of success. Here, then, you have the preliminary conditions of the attack—the enemy's war-ships lying off the port send in by night, or in foggy weather, their boats to destroy the mines; and if the ironclads were exposed

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to no danger thereby, they would themselves stand in to lend powerful support to the attack. Indeed, the theory at present is, that a near approach of the ironclads will be indispensable to the success of the attack on the mines. To prevent this co-operation on their part, and also to meet them in a final attempt to steam in after the minefield might be destroyed, guns capable of piercing the ship's armour form an essential part of the means of defence. All the vital parts of a ship are covered with this armour, and the guns would fire solid shot to pierce through the armour and smash the machinery—and, of course, a single shot might disable a ship.

While men of science and scientific officers have been perfecting submarine mines, they have also produced another engine of war, the torpedo-boat. These swift vessels would issue from the port and attack even the ironclads, which would defend themselves with their light artillery, and with nets hung round them under water. But the game of torpedo-boats is one that two can play at, and the enemy would have his flotilla of these; so that the very beginning of an engagement would be a torpedo duel. These boats, it is believed, might also be eminently effective in reserve, after the enemy should have forced a passage. But we are here

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dealing with absolutely new conditions of war. Not long ago they would have belonged to the region of romance, even of fable; and they still are so far matter of speculation that they offer many problems, of which nothing but the proof of war can supply the solution.

Besides these means of defence, a proposal has been made to add to them, in certain circumstances, gunboats of a particular kind. It is argued that, in view of the fact that if a boat is not intended to cross the ocean, but only to move a short distance and at a moderate speed from port, it may carry a thickness of armour which shall render it impervious to the heaviest ship's gun; that it will be a small object to fire at; and that thus, when armed each with a single heavy armour-piercing gun, one or two of these, steaming out a mile or two from port, would be formidable even to the largest iron-clad, and cause it to keep at a respectful distance. I do not know that any such boat has yet been constructed; the merit of it has been strongly insisted on and supported by eminent naval authority. But such floating defence would be specially applicable to those ports which might be bombarded from a distance beyond the armour-piercing power of guns on the shore.

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I think I have now given you a sketch descriptive of the conditions under which ports are defended, and will pass to the consideration of what is of special interest to the present audience, the defence of the Thames. Here we have a river navigable for the largest ships, offering a way into the midst of the richest capital in the world. It would hold forth in time of war two kinds of temptation to an enemy—one, the endeavour to seize and hold it with a military force, thus paralysing the resources of the kingdom; the other, the entry of an ironclad squadron, to lay London under contribution and spread indescribable panic. And assuming that this would, even now, involve risk to the ships, we must remember that the object would be such that enterprising officers would not be deterred from the attempt unless it were absolutely desperate. Now, I am informed that the navigation of the river is so well known that there would be no difficulty in procuring pilots to take ships in, even if the buoys were removed—and that, too, by night—not, of course, without risk. Then, as to the defensive impediments in the way of a squadron, it would presumably tow with it from its port of departure the boats destined to attack the submarine defences; and we may

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grant that so long as these mines remain serviceable the ironclads cannot advance. But if the attempt to destroy them should be successful, the ironclads might disregard the fire of any but armour-piercing guns. Their wooden parts would be greatly damaged by shells, but they are so designed that all that is vital to their action as fighting ships, their machinery, their armament, and their means of flotation, is cased in armour. It may be said we should still meet them with torpedoes. But they would be accompanied by torpedo-boats to engage ours, and knowing the problem before them, would have presumably made all provision, in this and every other way, to meet it. Therefore, if they had overcome the submarine and torpedo defences, the ships, not more damaged than many a squadron has been in the naval fights of a former time, would steam up the river retaining all their power of mischief.

Now we may conclude, I think, that the submarine defences will be forthcoming. But I have already mentioned how these require to be supplemented by what are called quick-firing guns—new contrivances, mounted in a novel way and capable of being loaded, aimed, and fired from eight to twenty times in a

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minute—in order to keep off the boats which attack the mines. And, finally, in case of the attack having so far succeeded as to clear these out of the way of the ironclads, then there must be armour-piercing guns to penetrate the vitals of the ships as they steam past. And here it is necessary to deal with the possible objection, that if these guns can ultimately dispose of the ironclads there is no need of other defences. But it is considered quite possible that ships in a clear channel could steam past these guns without being destroyed, trusting to their speed and to the slow rate at which these great ordnance could be fired. What the submarine defence effects is to interpose a very formidable preliminary obstacle to the advance of the ships, and keep them stationary under the fire of our great guns, in which case the risk of destruction to the ships would be immensely increased.

It will be seen, then, that our needs for the defence of the Thames are—

1st. The completion of the submarine defences by adding guard-boats.

2nd. Light (what are called quick-firing) guns and machine-guns to protect the submarine mines against boats.

3rd. Heavy guns to penetrate ironclads.

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4th. The strengthening of the existing works and making additions to them.

5th. Torpedo-boats.

The cost of these heavy guns would have seemed, a few years ago, incredible. It is the Krupps and the Whitworths and the Armstrongs who, by their improvements in the resisting-power of steel, have set the wits of chemists who deal with explosives—our modern Friar Bacons—to work on the devising of more effective powder; and so guns and projectiles of such power were at length produced that, if ships were to be shot-proof, it was necessary still more to strengthen their armour; until, in this rivalry of progress between ship and gun, we may hope a stage is at last reached where a ship can bear no further weight on the one side, and where to increase the size of guns would not add to their efficiency on the other. The largest gun which it is proposed to assign to the land-service costs about £15,000, and the carriage to bear it, and to admit of the working of this ponderous mass, costs about as much. Perhaps the increase in the cost of the necessary implements of war is no misfortune for us, whose ultimate difficulty lies rather in finding men than in raising money. And possibly when the peoples of the Continent have

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been subjected yet a while longer, besides the terrible tax of conscription, to the ever-increasing expense of arming their huge hosts with newly invented weapons, their common-sense may at length revolt against a system which diverts all the life-currents of a nation to barren purposes of war, and the world may at last enter on an interval of repose.

So far I have been speaking of an attack by ships on the Thames. I will now turn to the other case of a sudden advance of a land-force on London, and the way to meet it. I am not speaking of a whole army—that would be met by our army—but of a force sufficient to seize and hold the capital, capable of rapid movement, and which would find its opportunity when the whole of our forces were engaged in confronting the enemy's army, either by evading the defensive forces by some of the usual devices of war, or by disembarking on a different part of the coast. For instance, if the main armies were engaged in Sussex, a force suddenly landed at the mouth of the Thames would be only three marches from London; if thrown ashore during Monday, it would be easily in London on Thursday. So that, seeing how fatal such a move would be—absolute checkmate—the necessity has long been recognised of guarding

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London by a force apart from the field army, and devoted especially to that duty. And to this end a plan which I believe at one time found favour was to encircle the capital with a cordon of permanent forts.

But the grand objection to permanent forts is the enormous expense. Of course, the longer the radii across which they are spread, the more numerous must they be. And if the radii be contracted to the shortest practicable distance from London, these forts would come amidst streets, where the sites would be very costly, and where a clear space for their guns could only be obtained by demolishing a multitude of houses. Moreover, if you have permanent forts, they must be garrisoned and armed, and a vast army might be locked up in this way, and an immense number of guns and artillery men. Therefore, what to my mind is a measure preferable in every way, including efficiency for its purpose, is to mark out round London lines of defence to meet all possible lines of attack upon it, not to be constructed except on the imminence of war, but to be thoroughly planned, and the means of creating and occupying them kept always ready. From whatever point the enemy might advance, there should always be a position near London in which to meet him. Thus, from

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the Thames at Barking, a line north to Claybury Hill on the Roding, six miles long, would bar the way to an advance from the coast of Essex; another line, south of the Thames, extending from Erith by Dartford and Chislehurst to Bromley, nine miles long, would close all the roads to London from a force landing anywhere from the mouth of the Thames to Hastings (our most vulnerable side); a position from Bromley by Norwood to Tooting would bar an advance from the side of Brighton; one from Wimbledon by Kingston Hill to Kew, an approach from the south-west. In the same way, attacks from the north-west, north, or north-east—far less probable—would be met in positions situated on a circuit by Acton, Willesden, Muswell Hill, Tottenham, Woodford, to the completion of the circle again at Claybury in Essex, thus surrounding London with positions. And it could never, I imagine, be necessary to occupy more than one of these, an assumption on which I base a proposal for providing the force necessary to occupy the front menaced, and which I estimate only at 60,000 riflemen, besides engineers for the works and artillerymen to man 160 guns.

Now, in order that there might be no doubt as to the functions of this force, it might be called the London Guards. There are already

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Rifle Volunteer battalions in and near London to the number of 25,000. Thirty-five thousand additional men would, therefore, be required. Now, as large numbers of efficient Volunteers have been passing out of the force every year, scores of thousands of such exist in London, and I do not apprehend any difficulty in procuring the required number in great measure by re-enlistment.

There are also in the Middlesex and Tower Hamlets Engineer Volunteers 1400 men.

The training of all these, after learning the first rudimentary military exercises, should be exactly adapted to their special function as the defenders of London. In case of war the Rifles would supply working parties to form the entrenchments, being directed and assisted by the Volunteer Engineers. They should then practise in their own exercising-grounds the making of hasty entrenchments and the mode of occupying them in order of battle. And their annual exercises should be an exact rehearsal in one or more of the before-mentioned positions of what they would do in war—the exact part of the position assigned to each portion of the force, whether field work, or shelter trench, or line of existing buildings, should be defined, the measures necessary for its preparation pointed out,

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and the place of each battalion and company in the line of battle taken up and its mode of action rehearsed.

An ample force of Volunteer Artillery, numbering 3300, exists in London. These should obviously be at once trained to use the same guns, and no other, which they would use in action. And here I would point out one of the advantages which we should possess over an invader. In a rapid movement he could only be accompanied by field artillery. We, on the other hand, might employ what are called guns of position—heavier, but still quite portable guns—which would be altogether an overmatch for his artillery, and ought to go near to decide an action. We have a large number of such, a little old-fashioned, but serviceable, and these ought to be at once given to the men who are to serve them. But a much better gun of position, more efficient against the improved artillery of foreign armies in every way, has been constructed, and a supply of these, as they become ready, should be substituted for those I have mentioned. It will also be expedient to provide a number of those machine-guns which pour a shower of bullets at once on a given space.

Another item of expenditure would be a field

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kit. You are no doubt aware that the Volunteer possesses no other equipment than that in which you see him going forth to drill; and you are also aware that he could not, of course, remain out on field duty even for two or three days without such a field kit as all troops possess. To provide your 60,000 riflemen, your 3300 artillerymen, and your 1400 engineers with the necessary articles of equipment—great-coat, valise, water-bottle, haversack, mess-tin, leggings and boots—would cost £134,000. At the headquarters of every corps there should be a store to hold these, which might generally, I suppose, be hired, and adding the capital to provide for the rent, we will suppose that the cost for equipment would be, in round numbers, £145,000. As the articles would only be in use during the periods of annual exercise, they would last many years.

It will also be necessary to build in rear of each position a magazine for ammunition, a place for stores, and a shed for the guns of position, which would be drawn to their places in the line by dray or van horses driven by their own waggoners.

What I want you to realise is this, that, having an auxiliary force which can only give a comparatively small portion of its time to military

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instruction, that time will be turned to the best possible account by assigning to it specific duties, and those of the most practical kind, so that all the time of instruction will be directed to an apparent and a practical end; and I would scarcely stop short of making each individual man know his place in the general plan. I need hardly point out what a sense of reality and consequent earnestness and spirit would thus be infused into the force, and what a very different spectacle we should witness in case of a call to arms. That would produce now, I fear, nothing but general bewilderment, followed by general dismay; while in the other case we should see the business-like action of men who know exactly what they are about.

I have now endeavoured, without detail, which would be out of place here, but of which an immense deal stands behind the small array of facts I have given you, to place before you what I may call a popularised view of what it is which those who devise plans of defence desire to provide for. The more that particulars of the subject, intelligible and easily grasped, can be disseminated through the country and made clear to all classes, the more likely shall we be to see a general willingness to realise a plan of defence. And a most important step will

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be to enlist among such an audience as that I now address a number who will be ready to consider favourably a reasonable project. The time is just now opportune: I believe that the public is more than commonly disposed at this moment to entertain the subject, and, moreover, I believe that the Volunteers, diffused as they are throughout the community, have greatly contributed by their zeal and excellent conduct to render military questions more interesting to the people.

This brings me to the last point I shall venture to say a word about, the question of how provision may be made for constructing defences. I can quite understand that any particular city may say that its security is properly the care of the whole community. But I can also understand a different view. It may be said, for instance, that the wealth and prosperity of the City are what invite attack; that immunity from attack secures the continuance of that wealth and that prosperity more than any other form of insurance; that what will indeed be a disaster to the country at large will be locally something more—it will be immediate destruction to the City and ruin to its inhabitants. I would also point to the circumstances which render it difficult for a Minister in this

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country to increase taxation, even for the most necessary measures, and to the strong support which a Government desirous of completing our defences would derive from the fact that the towns most immediately concerned were desirous of contributing to their own defence. Without venturing to suggest to you, so much better able to deal with the matter, the particular way in which this might be done, I would point out that any town intending to contribute would probably prefer to undertake some part of the work which should be entirely its own, and leave, in any case, the guns and fortifications altogether to the military authorities.

Now, what are still needed are guard-boats and torpedo-boats. A guard-boat costs £4000, a torpedo-boat £15,000. One guard-boat would suffice as a permanent vessel on the Thames, though many improvised boats would be added in case of need. From four to six torpedo-boats would be ample for the Thames. The crews of a guard-boat or a torpedo-boat would be, say, sixteen men—of whom there should be three reliefs—fifty men would provide a crew for either, and each man of the volunteer crews would be clothed and his necessary expenses paid for £10 a year. Thus, 250 volunteers would man these five vessels for £2500 a year; they would be

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enlisted among the Thames population, and might be called the Thames River Guards. To purchase and man these boats, leaving the Government to arm them, would be a distinct local undertaking, the accomplishment of which all who might take part in it would feel proud of, as a piece of good work entirely their own, and which I thoroughly believe would, with the completion of the river works and armaments by the Government, give absolute security to the Thames.

As to the London Guards, to be devoted absolutely to the defence of the capital, I have already stated what would be the expense of equipping them for the field. And as to the cost of raising and maintaining the additional force, the annual expense may be taken (since the addition of 5s. proposed by the Government) as £3, 8s. per efficient man. And if the City of London should see fit to raise an additional force for the special protection of the capital, the new battalions might bear a name showing the source which had produced them.

I will venture on one more suggestion, which, though it does not relate specially to the defence of the Thames, will possibly have some interest for the present audience. The French make no secret of their kind intention to attack our trade

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and bombard our seaboard towns in case of war. Their Minister of Marine has taken the lead in these benevolent projects, and the words of a Minister of Marine are on such a point worthy of attention. No response that we could make would be so satisfactory as the resolution of individual cities and ports to meet the menace by independent efforts. A squadron of swift cruisers, named after their places of origin—the *London*, the *Liverpool*, the *Newcastle*, the *Edinburgh*, the *Glasgow*, the *Bristol*—would go far to protect our trade and our towns, and even to turn the thoughts of the French Minister into other and more practicable channels.

I trust, then, that I shall not have been without the indulgence of the audience in suggesting how this great city might take the lead in providing for its own defence, and I may say, its own prosperity. I cannot doubt that such an example would be followed; and if the idea were once taken up, an invitation to the Chambers of Commerce of other great towns to confer with that of London might lead to a general recognition of the expediency of local communities contributing to their own local defences. And I would point out that if the popular feeling on the subject were to receive such practical expression, it would not merely be easier for the

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Government to concur, but almost impossible for it to resist the impulse, and thus a movement initiated by the City of London might end in the rapid accomplishment of measures already devised for the general safety of the country.

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V.

PROTECTION OF THE EMPIRE.

Speech of Sir Edward Hamley, on Sir Walter B. Barttelot's motion on going into Supply upon the Army Estimates. House of Commons, Monday, March 5, 1888.

Sir Edward Hamley (Birkenhead) said:—It so happens that both the present Resolution and the former one have so much in common with the Memorandum and Report which the Secretary of State for War has laid before the House that they all relate to that most urgent question—the defence of the Empire. That brings with it the great advantage that the debate on military subjects, instead of being diffused, and one may say lost, over a vast variety of matters, is directed to a practical end. The Secretary of State for War proposes, after reference to the Report of his Committee, to complete the fortifications of Portsmouth, Plymouth, and the Thames, of Gibraltar and Malta, and of the other coaling stations so

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essential to the maintenance of the Empire, and will ask for a sum of £2,200,000 to be specially devoted to these purposes. For my own part, I think that both the House and the country may well be congratulated on the fact that a Secretary of State for War has at length brought forward a specific proposal for the national defences of the country, and has done it in earnest, and in a practical way.

We have been but too much accustomed to see it dealt with in a make-believe fashion. We have heard words of promise uttered to the ear but broken to the hope, never intended, perhaps, to be kept, but meant only as a decent shelving of the question. But now the Secretary of State for War tells the House not only that these matters are urgent and must receive attention, but has also indicated the financial mode of putting his proposal into execution; and that mode, I am happy to say, is not by the illusory means of the army estimates. But I confess that I wish the right hon. gentleman could have seen his way to make a larger and bolder demand, for it would appear to be only necessary to convince the House, as I am sure could be done, that certain measures are absolutely indispensable for the safety of the country, and then it would follow,

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as the night the day, that the means for giving them effect to the full extent would be forthcoming. If the House was convinced and would admit that certain measures were indispensable to the safety of the country, and was at the same time to refuse the means of giving effect to those measures, that would argue a degree of unreason which it would be disrespectful to attribute to that Assembly. Of course, in coming to a conclusion the House would wish to put itself in accord with the feeling of the country. But the same might be said of the country as of the House—that if it were convinced that its own safety depended on certain measures, it would certainly press for their immediate execution.

Hitherto the public has been very little acquainted with the matter. It has had no means of informing itself. It is not to be supposed that many persons outside of this House ever see or examine the army estitimates; still less is it to be supposed that if they did they would understand them. They know that we have naval fortresses, but they are only now learning that as fortresses they have become ineffective. They know also we have spent a great deal of money on guns, but they are only beginning to understand that

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those weapons have become useless, because they are obsolete. They see that in our Volunteers we have a body of very fine and very zealous men, smartly dressed and carrying a rifle; but the public are only just realising the fact, that the national army is unable to keep the field for a couple of days for want of equipment. They know that in our time no enemy has ever appeared on our coasts, and they are not prone to believe that any ever would appear. They see the nations of the Continent groaning beneath their huge armaments, military and naval, but they are not yet accustomed to connect these in their minds with the idea of danger to England; and as they have the natural disinclination of all subjects in all States to give money for public purposes, they have been exactly in the condition of mind to give ear to those trading politicians who, knowing no more of the state of the case than the people themselves do, have been always ready to persuade them that it is a heinous offence to give money for armaments or defences, and who only look on the relations of the great military Powers with each other, where the indiscretion of an outpost might precipitate a general war, to draw from thence the happy conclusion that

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nobody desires, or ever will desire, to interrupt the peace of the world. I think it was Mr. Cobden, an eminent apostle of peace, who once said—it may have been in this House for all I know—he could crumple up Russia like a sheet of paper. It is a great pity he did not do it, for it would have saved us an immense amount of expense and panic.

But I cannot doubt that that declaration, coming from so trusted a source, did a great deal of harm to the nation. Now, I am happy to think that the people are beginning to emerge from that condition of ignorance, and there are many signs abroad that the idea that our defences must be looked to is spreading fast. I wish very much, therefore, that the Secretary of State for War had felt himself able to repose a larger confidence in the willingness both of the House and of the people to render themselves, their property, and their honour safe against the formidable States which may on some sudden occasion direct their weapons against us, and which are always prepared to the last detail for war. But I willingly accept this instalment which the right hon. gentleman offers. What is proposed will be so much indispensable work done, cleared out of the way, and carried to the credit of

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the nation. Our naval fortresses will no longer present the ridiculous spectacle of defensive works which are not defensible, armed with obsolete and dismounted artillery. It will be seen from the proposals in the Memorandum that part of the sum is to be appropriated to the completion of what is to be done in this island, and part to what is to be done outside of it. Now, there is so much to be done for our defences both at home and abroad that it is, perhaps, difficult to say what should first demand attention. Where all is so urgent it may, perhaps, be thought that there is no first. But, without meaning to dispute that it is indispensable to the interests of the Empire to place our Mediterranean fortresses in a thorough condition of defence, I am of opinion that if part only of the defences are to be undertaken, that part should lie within the four seas of Britain. It is better to have one piece of work finished than many pieces incomplete, and consequently, so long as incomplete, absolutely ineffectual; and I should, therefore, have preferred to see the proposed sum appropriated in that direction.

It would be doubtless an excellent thing to have our great dockyards, and the river by which an enemy's ship would approach London,

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made secure. So far all must agree; nor need there be any dissent from that part of the Report which placed Malta and Gibraltar next in importance among military ports. Those places were certainly rightly placed high in the list of military ports; but I cannot but remember that while we are fortifying them, the commercial ports, the avenues on which we depend for so large a portion of our daily bread, will be left, I will not say undefended, but still open to those attacks which naval men think we shall be especially exposed to in the future. Admiral Aube, one of the French Ministers of Marine, speaking on this subject, said—

"The attack on every source of riches will become not only legitimate, but obligatory. . . . We must expect to see ironclad fleets turn their power of attack and destruction against all littoral towns, fortified or unfortified, whether purely peace establishments or warlike, to burn them, ruin them, or extort ransoms from them without mercy. With this new duty which we are therefore to conclude is now laid upon our ironclad fleets, we are now entering upon a new system of maritime warfare; namely, that of the attack and defence of coasts. Every littoral town may be burnt down or laid under contribution by fleets or even by hostile cruisers. . . . All this is coming; . . . even the day when England's shores will be insulted and her ports burnt by the fleet of a victorious enemy."

Such is the declared policy of the French navy.

Now, our own officers seem to have come

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to the conclusion that what the commercial ports have chiefly to fear is not an attack by ironclad fleets. It is considered probable that in no case except that of some great naval disaster should we be left without a Channel Squadron; but it is not easy to guard a large circumference of coast like that of this island; and the experiments with our navy last autumn have shown that swift cruisers can always evade a naval squadron, and can enter and occupy ports long enough to inflict immense damage in many ways. The remedy for this is to enable the port to defend itself against the cruisers till the war-ships, summoned by the telegraph that surrounds the coast, shall have time to arrive; and the means of so defending itself are held to be a fleet of gunboats and torpedo-boats capable of going outside the port and engaging the enemy, supported by long-ranging guns in batteries on shore. These are the means which, in addition to submarine minefields in suitable localities, are held by those who have studied the matter to be sufficient for the purpose; that is, for the defence and security of our commercial ports. Such, then, will constitute the security of our coasts against an enemy's ships; and only those who deny that we can ever be at war will dispute

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that we cannot obtain that security too soon. Now, the supply of these floating defences is the business not of the War Office, but the Admiralty. It is, however, necessary to take them into account in the discussion of any general scheme of defence, and I now advert to them in the hope that provision for them may be among the proposals made to the House by the First Lord of the Admiralty. But there are two other matters included in the scheme which belong to the province of the War Office—the submarine mines, including the light artillery attached to them, and the guns for the coast batteries of our commercial ports. The submarine mines are, in many situations, likely to be most effective; for instance, where the towns to be defended are situated far up rivers, with a long channel of approach, like London or Newcastle, or in our fortified harbours. But there are other situations where they are less applicable, as where towns are at the mouths of rivers, so that they could be fired on from the sea. The Mersey, for instance, appears to me to be a case where an increased supply of guns would be more appropriate than an increase of submarine mines. Liverpool is a port which it is essential to keep as open as possible, and ships making for it should find no obstacle.

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There are already considerable difficulties in the channel, and it is quite possible that submarine mines would be as likely to impede our own ships as the enemy's. I should, therefore, have been glad to see a large part of the sum which is here appropriated to submarine mines and their light artillery given to a supply of the best guns for the coast batteries of our commercial ports, for it must be remembered that the mines could be made quickly, and put down on an emergency, while the guns take a long time to construct.

Thus far I have been only speaking of those defences which are to oppose the enterprises of an enemy's ships; but there remains another equally important kind of defence; namely, that which should oppose invasion, and for that I find little or no provision made in the Memorandum. It is true we have a splendid army of defenders, increasing in numbers and efficiency every year. But so long as they are kept unprovided for their purpose, so long they cannot be counted among the defences of the country. They are quite inefficient, for want of equipment in what would enable them to keep the field. In order to enable them to do that, they want personal equipment, stores, and magazines; their transport ought to be or-

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ganised ready for a crisis; the best rifle and the most powerful gun should be given to them, and the positions they would occupy should be selected and made places of exercise. In fact, a general plan of defence, in all its details, should be most carefully prepared. But for all this I find there is scarcely any provision made in the Memorandum. The chief item of preparation is the announcement that twenty-one batteries of position are to be given to the Volunteer Artillery. These, I presume, are to be such guns as are already in store, which, perhaps, are a little behind the present stage of effectiveness. But it is quite a step in the right direction to give these to the Volunteers till better are forthcoming, since these must be, until then, what they would have to use against an enemy.

But in scarcely any other respect is a perceptible approach made towards rendering our auxiliary forces efficient in equipment. Even the land defence of London receives no notice. So long as this extraordinary anomaly exists of a vast and ever-increasing force of defenders who are not permitted to be capable of defending us, so long shall I continue to think that to render them efficient is among the most pressing needs of the country. It seems so illogical for

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what calls itself a practical people to bring them to a certain point and leave them—to stop short of that animating touch which alone is wanting to give them vitality and purpose; and all that is needful would be amply provided for by the addition of £1,000,000 to the sum that it is now proposed to ask for. Now, I know, and indeed we all know, that every proposal to spend money in order to render the kingdom secure is sure to be opposed by a particular class of politicians. But, I ask, what is their title to be listened to? Do they know anything specially about the defence of coasts? Can they suggest cheaper, better, and equally effective methods? Are they better able than the rest of us to judge of the probabilities of invasion? They do not profess, so far as I know, to have bestowed any attention on the subject, except to look at the figures which represent the cost. In fact, they may very properly be described as professional cheeseparers. The economy they advocate is not a rational or a respectable economy. It is penuriousness of the kind which refuses to replace the missing slate on the roof or the broken pane in the window. It is the frugality of the miser. But, at the same time, I fear it is allowed to have too much influence on our policy. I feel sure

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that if this spectre were resolutely grappled with it would prove a sham; that this ghost in the churchyard would turn out to be a thing with a turnip for a head, lighted by a farthing candle.

Now, it might, perhaps, fairly be inferred from passages in the Memorandum that although much that is needed is to be left undone, yet everything is to be undertaken that could be done in the time assigned for the completion of the military ports—that is to say, in three years. But nothing could be clearer than this, that with more money a great deal more could be done; everything that is needed could be done in that time. In three years—much less, indeed—the Volunteers could be completely equipped, the necessary magazines and stores built, the country reconnoitred and positions defined, the auxiliary forces assigned to their posts, the means of transport thoroughly registered, and the land defences of the capital provided for. Matters could be arranged with the commercial ports for joint contributions, and their defence could be proceeded with and rendered complete. All that could go on simultaneously with the works at the military ports. It may be said that we are at present producing guns as fast as the resources of our gun-fac-

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tories will admit. That may be so, though there is a belief, in which I share, that an important addition will shortly be made to our power of producing guns. But everything else could be set on foot forthwith. If we are to wait three years for the proposed instalment, the present generation will not at that rate see the kingdom rendered secure. It is impossible to understand why this matter should not be put plainly to the people, and why they should not be directly asked to give the means for effecting it. If that were done, and the means were withheld, it would be impossible to blame anybody but the people themselves; but now it may truly be said, if the matter is not clearly put before them, and if they are not asked to find the money, that there *is* somebody to blame. I have thought it my duty to put these matters before the House; but, at the same time, I shall cordially support the present proposals. Although they form but a slow and short step, and although they indicate a perilous dallying with a momentous subject, yet the step, so far as it goes, is in the right direction, and will have my hearty concurrence. To the Resolution of my hon. and gallant friend (Sir Walter B. Barttelot) I will also give my hearty concurrence. I have long been of opinion, and I have freely

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expressed it, that this is a time when publicity has come to be a necessary element in our military system. Now that the constituencies, by their numbers, form so important an element in the councils of the nation, it is not only imprudent—it is worse—not to call them into council in everything which requires their attention. What higher interest can they have than in rendering the country secure from an enemy? I will not attribute to the people so unreasoning a condition of mind as to suppose that if these matters were put clearly before them they would refuse their ready concurrence in providing the means for giving them effect.

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VI.

MILITARY REQUIREMENTS OF THE EMPIRE.

(*LETTER TO THE "TIMES," MARCH* 10, 1888.)

SIR,—There appears to have been a good deal of misapprehension as to the object which naval and military members of the House of Commons had in view in the debate of Monday and Thursday. I have no right to speak for them, but I know what I was hoping for myself, and I think it was not very different from the general desire.

It appeared to me that it would be an excellent thing to have a standard established, by competent authority, by which to judge whether the country was so provided with troops and war material as to be always secure against being taken by surprise, and that the standard might be fixed somewhat in this way.

First, it will be admitted that our forts and posts at home and abroad should have garrisons. The strength of these could be easily computed,

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and also their composition, how far composed of regulars, of militia or Volunteers, or, in colonial posts, of native levies.

Then, it will be admitted that if we have a defensive army it should be capable of defending us. There is abundance of material; it should be so equipped and organised as to be capable of meeting an enemy of an assumed strength, say 100,000 men, &c., and the proportions of regulars and auxiliary forces fixed from existing data.

Next, we should have, for the defence of our interests out of this country, a disposable force capable of being at once despatched on an emergency. It is a terrible scandal that we cannot, as has been proved, send 15,000 or 20,000 men abroad at a crisis without pulling our army to pieces in order to construct an expeditionary force out of the wreck. The strength of this force it would have been part of the duty of the aforesaid competent authority to fix.

Finally, there must have been a reserve to keep this force efficient—which need not exist in an embodied state—and a general reserve.

I have left the army of India out of the problem; it might either form part of it or be separately provided for.

The force thus fixed, it would be a matter of

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calculation to fix also the war material which would render it efficient. And this, as it seems to me, would be an advantage to the country and also to the Secretary for War. To the country, because it would render impossible many evils which are believed to have existed; the sale of war material to meet a financial requirement; the cutting-off of war material from the estimates for the same reason; and the necessity of purchasing, on an emergency, in a hurry. To the Minister, because, instead of having to undertake a perplexed inquiry into the condition of the army and its stores, he would only have to compare what he might find us possessed of with the standard.

The body, whatever it might be, which should fix this standard would usurp nobody's prerogatives. It would be a body of limited powers and of limited existence. Its powers would be limited to calling for the necessary evidence and to making a report. Its existence would be limited to the time necessary for performing those functions.

I think it undeniable that the fixing of a standard of this kind would keep us always in a fair state of preparation for war, and would prevent the scandals I have adverted to. The Minister would preserve the power of expanding

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the force and its stores, or diminishing them, on his responsibility, which, of course, he could only do on justifiable grounds. It appears to me that we should thus possess a guarantee for the public safety, capable of being always appealed to, and which has no present existence, and of a value to stand against any amount of sentimental objection.—I am, Sir, your obedient servant,

EDWARD HAMLEY,
LIEUTENANT-GENERAL.

RYDER STREET, *March* 9.

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VII.

THE DEFENCELESSNESS OF LONDON.

(*THE "NINETEENTH CENTURY," MAY* 1888.)

THERE is no need to describe for the inhabitants of London the consequences of the seizure of the capital by a foreign army. The paralysis of law, administration, trade and commerce, the financial earthquake, its vibrations extending to distant lands, the misery of a population lying at an enemy's mercy, can be imagined by anybody. But what has never yet been made clear is the way in which the catastrophe may be obviated. If this were set distinctly before the mind of the people there can be little doubt that any approved measure of defence would receive general assent. It will be the object of this paper to describe briefly the military conditions of the case, to consider in general terms what means of defence we have, and how far they fulfil the purpose of rendering London secure.

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It must be understood at the outset that this military problem only presents itself because it is necessary to supplement on land the means of protection which any fleet we have, or are likely to have, could afford. If the navy were augmented to the extent necessary for the full defence against all comers of our foreign possessions, our commerce, and our home waters, that would be all that we could desire. It is the insufficiency, under certain circumstances, of our fleet for these purposes, and the consequent possibility that an enemy, or combination of enemies, might obtain for a time the command of the Channel, which renders it so incumbent on us to place this island in a condition to take care of itself for a while; a condition which would in any case confer on the fleet the inestimable advantage of perfect freedom of movement.

Considered as the vital point in a theatre of war, the position of London is exceptionally perilous. An invading army always has, or should have, a distinct object in view, the attainment of which will be either victory or a step giving assurance of victory. If the capital be near the invaded frontier, its seizure will be the object. If at a distance so considerable that it can hardly be reached in one campaign,

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then an intermediate locality will be aimed at where the invader can secure himself, can repair damages, reorganise his army, and establish an advanced base of operations. Thus Paris and Berlin are both removed far from the Rhine; Vienna is beyond the reach of a sudden blow from a bordering Power; lines of defence, natural or fortified, exist between the frontier and the capital, so that the army of each country will have ample opportunities of interposing to protect the heart of the state, which can only be immediately threatened after a protracted conflict.

It is obvious that these conditions do not exist in the case of London. A large extent of our shore—the coast of Essex, Kent, Sussex, Hampshire—presents landing-places at an average distance of seventy miles from the metropolis. Ashore at any of these, the invader would be only four marches from the suburbs. Thus, no sooner has the enemy landed than the capital is imminently threatened. Nor is this its only, or perhaps its chief, disadvantage. When the Germans arrived before Paris a long and arduous siege was before them. The fortifications enabled the French capital to hold out while the armies in the field tried their fortune elsewhere. But the invader of England would

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find no such obstacles awaiting him. Once in the suburbs, a vast number of routes would conduct him to the heart of the City, and any opposition then possible must be offered in the streets.

It will be justly said that an invader could not march upon London without first disposing of our defensive army. The disembarkation would be observed even by night, when the electric light would discover it; while it was proceeding our troops would be concentrating on the side threatened, where we must deliver battle, and it would only be after a decisive victory that he could continue his march. But this is not the case specially contemplated when speaking of the undefended condition of London. The case is rather that in which a corps, organised and equipped for a rapid movement, might either be thrown ashore by the invader at some other point when his main army is advancing, or might be detached from his main army to move round the flank of the defenders, and thence direct on the capital. Such a movement, if successful, would fully answer the purpose of paralysing the general plan of defence, of spreading indescribable panic, and of bringing pressure, perhaps irresistible, to bear on what in the shape of a Government might remain to

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us. And such a movement is within the scope of an invader's plan because of the peculiar conditions of the case, namely, the proximity of London to so large a portion of our coast, and its undefended condition. These are the circumstances which, taken along with the immense augmentation of the fleets and armies of other Powers, and the duties other than home defence which must be performed by our own, render the military problem at once so difficult and so pressing. In foreign states it is only necessary to perceive that certain measures of defence are necessary to render it certain that they will be taken. Invasion is a possibility which presents itself to the mind of every citizen. When a man can remember to have heard his grandmother describe what took place when the foreign troops marched in, it needs little to persuade him of the necessity of keeping them out next time. In England we are haunted by no such recollections. We look on the Continent with its great armies ready to move as a spectator looks on a game of chess in which he has a placid interest but no stake. If great armies exist, eager for war, that is no concern of ours. "Let the galled jade wince, our withers are unwrung." This easy confidence has no substantial foundation. It rests on fan-

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ciful bases; on the notion that we still retain that supremacy as a naval power which existed some generations ago; that for long centuries nobody has invaded us and nobody ever will; that people who talk of invasion are "alarmists;" that we spend a great deal of money on our army and navy, and therefore it is incredible that they should not be sufficient for their purpose. The reason why a question so momentous can be disposed of in this slipshod fashion is, that our people have not been accustomed, as Continental peoples are, to look directly at it. As small objects in the foreground conceal the large features of the distance, so the wine and coal duties, the conversion of the Three per Cents., nay, the exposure of the unveracity of prominent politicians, the antics of light-headed seekers for notoriety, the howls of some truculent treason-monger at being subjected to a discipline all too light for his offences, and a succession of similar incidents which will be forgotten in a week, fix the attention of the public; while for the comparatively far-off event, on our security from which every social and political calculation must be based, we can only spare a passing glance. Until the last year or two the question of rendering the country safe has never excited any general interest; happily

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the people are now awakening to a sense of its importance, and it seems more than probable that measures of defence, if the need of them could be made clearly evident, would have a better chance now than ever before of being approved by those who will supply the means for their accomplishment.

A year ago the present writer pointed out in the House of Commons what the principal deficiencies were, gave an estimate of the sum necessary to place this island in a condition to defend itself, whether from attacks on our ports or from invasion, and suggested that a sum should be raised by loan sufficient to render us secure, and that the work should be begun at once and pushed forward with all possible expedition as something which ought to be viewed as admitting of no delay. This year the Secretary for War has proposed to raise and set apart a sum for completing a portion of our defences. It is far short of what is wanted, or what the country may be expected to give; but that the Ministry should recognise the necessity of setting about the business in a special and earnest way is a circumstance so full of hope that it ought to be accepted in a cheerful spirit. Now, among the many pressing matters which still remain as a task for the future is the defence

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of London. In dealing with this subject it is necessary to distinguish between London as a port and London as a capital.

First, considered as a port. London is classed by the War Office as a military port because of the arsenals and dockyard involved in the defence of the Thames, and for defence of the river provision is now to be made. But it evidently belongs to a different class from the purely military ports, Plymouth and Portsmouth, which derive their importance, not from their trade or wealth, but from their harbours and dockyards. London, in whatever class it may be convenient to place it, remains in the first rank among the commercial ports of the kingdom. Therefore when we read in the Secretary for War's Memorandum that, in undertaking any works at these (the commercial ports) beyond the submarine defences, "the Government is entitled to expect the co-operation of the localities which are to be so largely benefited by the protection of their trade," London must be included among these localities with the very first and foremost. It will be expedient, then, to consider what kind of co-operation may be expected from it as a commercial port.

The War Office will undertake, in the case of the commercial ports, to supply not only the

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submarine mines and the light artillery which must in most cases be associated with them, but also the large guns required to keep cruisers at a distance, and the works in which to place the guns. On the other hand, it may be expected that the ports will provide the sites for the works.

But, besides the War Office, the Admiralty must also bear an important part in the defence of these ports. The War Office undertakes the stationary defences; but floating defences are also considered indispensable, and these must be determined by the Admiralty; and it is held that these should consist of gunboats and torpedo-boats, which, supported by the batteries on shore, will issue from the ports to meet the enemy's cruisers. In order to prepare for the successful action of these it will be necessary to maintain in each port a force of naval volunteers and also a permanent staff of trained men and officers, who will instruct these volunteers and supply the necessary element of experience and authority when the time may come for manning these vessels and employing them against an enemy. It will probably be expected that the ports will contribute as their share of the naval defence both the naval volunteers and the sum necessary to maintain the permanent staff. Neither of these bodies will be numerous—the

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crew of a gunboat or torpedo-boat may be calculated with the necessary reliefs as fifty men, and the permanent staff would only amount to seven or eight officers and men.

All this is, however, independent of the other pressing question, namely, the defence of London by land against the enterprises of an enemy's army. A point which is generally agreed on is this—that the troops for this duty should be a special and separate body, not subject to be summoned elsewhere on any emergency. And although it would be no part of its purpose to recruit or reinforce the field army, it would be of essential service to that army by liberating it from the necessity of always interposing to defend the capital. Plans have formerly been set forth for defending London by surrounding it with permanent works, and if it were of reasonable dimensions this plan might be the best. But a consideration of the extent of the radius from the centre to the open country, and the consequent enormous sweep of the circumference, will show that the works would be so numerous as to require a vast force for their garrisons and an enormous sum for the purchase of sites and for their construction.

In view of these circumstances the present writer set forth a certain plan in this review in

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March 1885, and in other ways since. It was offered, not as the best plan imaginable, but as one attainable with such means as were likely to be afforded. It was based on these suppositions:—(1) That the only force practically obtainable for the purpose would be Volunteers; (2) that the defence of London should be assigned to troops resident in and near it, specially designated and trained for that purpose, and independent of the field army or of the needs of other localities; (3) that, instead of permanent works, an *entourage* of positions should be defined, and the mode of intrenching and occupying each of them studied by competent officers in all its particulars, and taught, and practised so far as can be done without actual execution on the ground, to the troops assigned for its defence.

In the case of the Volunteer Infantry, the idea at the base of the plan was this. It is in vain to expect from them, with their limited opportunities of instruction, the proficiency as a manœuvring force which regular troops attain to. Yet if they are to be of use, they must be capable of opposing the regular troops of the invader. This end is to be sought by restricting their instruction (after the elementary training, which should be the simplest possible) to a knowledge of how to prepare, occupy, and de-

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fend given portions of actual ground. In this way not only all parts of the force, but to a great extent its individual members, would become familiar with their places in the line of battle, with the work they would be called on to perform in fortifying it, and with the mode in which they would be expected to defend it; and as the defence is a much simpler operation and one which demands much less training and practice than the attack (to say nothing of the power of manœuvring on the battlefield), all this ought to be within the capacity of the Volunteer Infantry, besides that essential accomplishment, efficiency in the use of the rifle.

The Volunteer Artillery would have an advantage of another kind, that of being armed with a weapon of much greater power than that which could accompany the landing and advance of an invader. In order to become efficient in its duties, it must be trained to work its own guns of position, and to place and use them in the works assigned to them in the line of battle. These guns should be drawn by teams of strong horses, levied by requisition according to an organised system of registration, and driven by their own carters. And it would obviously be expedient that on fixed occasions the batteries should be thus horsed for practice and exercised

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along with the infantry, so far as practicable, in their destined positions.

The Engineer Volunteers would be instructed in their own localities in the business of preparing the position defined in all its details, intrenchments, batteries, field-works, farms, villages, woods, buildings of all kinds, and must qualify themselves to plan and direct the construction of the works and the necessary demolitions.

In this way, when invasion was expected, these Guards of London, assembled in convenient camps, would at once proceed to create, in the shortest possible time, on all sides where attack might be anticipated, intrenched positions, strengthened with field-works and garnished with powerful artillery, which, when occupied by good riflemen, trained specially in the business of defending those particular positions, must needs be very formidable to the assailant. The riflemen would at once take up the places assigned to them, as the shooting line, the feeding line, the local reserves, and the general reserves; the gunners would know the exact distance of every point on the field of battle. In this way the disadvantage of brief time for training would to a great extent be obviated, the natural intelligence of the troops

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turned to account, and the confidence inspired which the feeling that they knew their business must impart.

In the before-mentioned plan it was estimated that it might be put in practice with 60,000 riflemen, 3000 artillerymen, and 1400 engineers directing workmen enrolled for the occasion.

It would become obviously a question, seeing the development to which machine-guns have attained, how far these should be added to the armament of the Volunteer force, for the purpose of meeting the attacks of the invader's infantry.

Now it is not pretended that the plan thus set forth is the best possible. But it has now been before the public for a considerable time —it was subjected when first made public to prolonged discussions by officers of all departments of the service—and it is the lowest estimate in point of force which, I believe, has been given. Let us see, then, how far its requirements could be met by the means at our disposal.

The London corps of Volunteer Riflemen available for the purpose muster, in round numbers, 30,000; of Militia 5000, of Artillery 3300, of Engineers 1400.

First, then, as to how to make good the deficiency of riflemen. In all schemes for employ-

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ing the Volunteers the fact must be allowed for that a great number of them are engaged in carrying on the daily business of the country. It is assumed, therefore, that, at the utmost, only one-half of any corps could be employed at once for any length of time, to be relieved at due interval by the other half. On this ground it is computed that, after providing for garrisons and the defence of their own localities, there would still be from 50,000 to 60,000 Volunteers available for general purposes taken from districts, such as the Midlands, not exposed to attack; and from others, like Scotland, where the Volunteers are more numerous than is needed. But to employ these in the defence of London would entail two disadvantages: first, that the army in the field and the garrisons would have no available reserve of Volunteers; secondly, that the principle of training men to occupy particular ground must be sacrificed. Thus the first line of the Volunteer force would be left without reinforcements, and the men would be used in a way that would deprive them, in an indefinite degree, of their value.

The Volunteer Artillery of the capital number between 3000 and 4000. A large part of these would be absorbed in the defence of the Thames —a perfectly legitimate duty, of course, for

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metropolitan troops—and it is at present uncertain what addition should be made for the defence of London. It would seem, therefore, that to put the above scheme, or any one grounded on similar bases, in execution, at least 25,000 riflemen and a certain number of artillerymen must be added to the Volunteers or militia of London. It is assumed that, at a crisis, not half but the whole of these defenders of the capital would be forthcoming; if not, the number must be increased accordingly.

In the matter of artillery, not only the defenders of London, but also our army in the field (which will be by no means too strong for its purpose) should have the aid of guns of position. It goes without saying that to meet an emergency we must use what is at hand, and we might scrape together of old 40-pounders, old 20-pounders, muzzle-loading 16-pounders, and the lighter part of the siege-train, enough in number for the defence of London; but any scheme of defence must include a sufficient supply, for all purposes, of guns of position of the most effective kind and newest pattern, and these have still to be manufactured.

Such, then, is the result of a comparison of the plan described with our existing resources. But it is needless to say that no plan could be

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adopted without being maturely considered and approved. And not till it is approved can it be set in operation. Meanwhile events will not await our convenience; foreign states will obstinately pursue their own plans without reference to it, and the outlook which the Continent affords at the present moment is at least uncomfortable. There are probably millions of people in this country who flatter themselves that nobody can possibly harbour evil designs against such an inoffensive and excellent nation as ourselves, and that if such designs did exist they would excite general reprobation. The facts, unfortunately, are quite different. Who are the friends that are to stand by us in time of need? All our great neighbours have known at one time or other what it is to be dominated by an enemy; our immunity has caused them no special satisfaction, and our calamities would excite no other general tone of reflection than this—that the turn of England, so long in coming, had come at last. The statesmen of the Continent, who without emotion saw Germany rise upon the ruin of France, would set about fresh schemes for the balance of power, in which England would no longer count, with dry eyes and cheerful countenances.

It is, then, because the subject of defence is

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so pressing that the present writer again and again invites attention to it. It is also because the concurrence of the public is so essential. All Governments in this country have a great reluctance to enter on any scheme which involves a large expenditure; therefore, however needful it may be, they prefer not to look at it, which it is easy not to do when there are so many less risky subjects to which to direct their attention. It is certain, therefore, that any serious and sufficient measures for the defence of London must be approved and aided, if not originated, by the municipal authorities of London, supported by the desire of the inhabitants. To them I would, then, commend the consideration of this paper. The fact must be accepted that any plan will cost money and entail inconvenience. To many minds these objections are insurmountable; but if they are to be allowed to prevail, that will be to proclaim that we are such slaves to our love of money and our dislike to incur inconvenience as to be incapable of exercising the faculty of self-defence, which is an attribute of all who call themselves men.

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VIII.

NATIONAL DEFENCES.

(*SPEECH IN THE HOUSE OF COMMONS, MAY* 16, 1888.)

SIR E. HAMLEY said:—I wish to be allowed to express my satisfaction—satisfaction which is now felt generally throughout the country—that the right hon. gentleman has seen his way to ask for a loan which is to be devoted to the national defences. I am so well satisfied that I will not even suggest any way by which it could have been disposed of better than as the Secretary for War proposes. I hope that this is an instalment only, and that when the right hon. gentleman who guards the public purse has taken his first plunge into these unaccustomed waters he will be less chary of repeating it, and will even grow fond of the exercise, and go on plunging again and again, amid the plaudits of delighted taxpayers. I will endeavour in a few sentences to show how far the requirements of defence render this measure necessary. I have

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been always ready to avow that when the national defences are in question the navy must hold the first place. I will go further than that, and say that, considering the geographical conditions of the kingdom and the Empire—the kingdom in the midst of the sea, and the Empire composed of dependencies which we can only reach by the highways of the ocean—considering, too, that every sea is covered with our merchantmen, and that they bring us not only the general prosperity that flows from commerce, but the food on which we depend, so that the interruption of these lines means national starvation—under these peculiar conditions, I say, it would be wise to make maritime supremacy the very basis of our policy; to encourage by legislation and in every other way all whose business lies on the waters that surround us; to foster the growth of a seafaring population; to rear and train ample supplies of seamen for our merchant navy and our fleet; and to render that fleet adequate beyond all doubt for all its purposes. That is to say, the fleet should have sufficient line-of-battle ships to dominate the home waters after detaching the necessary squadrons, sufficient swift cruisers to protect our trade lines, and sufficient floating defences of other kinds to place our commercial ports, our

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coaling stations, and our colonial harbours in security.

And it may, perhaps, be permissible to think that such a policy, founded on our national conditions, would be an eminently national policy, not less worthy of the people, not less suited to our circumstances, than that other policy which now guides us, and which it is almost sacrilege to touch. It may be said, and has been said, not without show of reason, that if our defences by sea were thus complete we need no defences by land. But I will endeavour to show that we should still need them. For ships are by their nature precarious defences; they are peculiarly liable to unforeseen disasters. I speak with extreme deference on such matters, but perhaps naval officers will agree with me that naval tactics are still very much in the clouds; that with ships and guns of which we know the qualities rather by computation, I might almost say by guess, than by proof, and that with the new element of the torpedo entering into the problem as an unknown quantity, there must be great uncertainty as to the naval actions of the future. It is to be noted, too, that in the days of our most undisputed supremacy on the ocean naval strategy demanded that our fleet should seek its enemies in distant

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waters, and only some strokes of good fortune prevented that concentration of foreign fleets in the Channel which was all that Napoleon was waiting for in order to cross with his army. Here was a case where efficient land defences would have rendered his project vain, and where, consequently, our admirals would have been free to act with a light heart on any point where they could best protect the country by seeking out and destroying the enemy. I think that naval members may agree that it would double the value of the fleet to have its action thus left free.

Again, supposing the temporary absence of the fleet, it might be well worth the risk for an enemy's force to make a dash on London, careless of its communications if it could reach its object; but it would be quite a different thing to find on landing that it was confronted with a strong defensive line, while the fleet might return and cut off its retreat. If a considerable augmentation of the fleet were necessary to raise it to a proper strength, time would be required to build the ships and train the seamen; whereas our land forces are already in existence, and only want the finishing-touches. Therefore I hail with satisfaction the recent declaration of the Secretary for War of his projects for our defence by land. He announced in terms that

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must give general satisfaction that plans were in progress for facilitating defensive operations and for so organising our forces as to supply us with an army for the defence of England and other troops for the defence of London. These plans and organisations are indispensable as preliminaries, and they are what everybody can conscientiously approve, since they are attended by no expense.

But it is with regard to these matters that I will once more point out how a certain expenditure is indispensable in other directions. We have an immense body of defenders in the Volunteers, but they are still in great measure without field equipment. This national army now represents the progressive growth of a whole generation. It is full of the most earnest spirit, but it has been doomed to inefficiency by being left incomplete. It is as if, after money and skill had reared some splendid building, a sudden access of thrift had left it without a roof. This is not economy—it must be called by some other name. I should therefore be well content to see steps taken at once for the equipment of the national forces. And along with this there is another item entailing expenditure; namely, the supply of arms, both rifles and guns. The right hon. gentleman the

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Secretary for War has most judiciously arranged for the immediate issue to the Volunteers of all the guns suitable for positions in the field which we now possess. But not only should the Volunteers as soon as possible receive a better class of such guns, but a certain proportion should be also supplied to our field army in aid of the lighter field artillery. It is of the nature of modern tactics that the attack of infantry in a battle should be preceded by a duel of artillery; the assailant endeavours to overpower the defender's artillery in order that his troops may not be fatally devastated by it during their advance. Therefore, as an army operating in its own country can make use of heavier artillery than one which crosses the sea to attack it, and which by the nature of the case will only be accompanied by more portable field batteries, it is to be hoped that we may always overpower the assailant's guns, who might thus be unable to launch his infantry to the attack at all, except under desperate conditions; and a possible inferiority of force on our part might thus receive an immense compensation. Consequently, besides the superior field-gun now in preparation, we shall want an adequate supply of guns of position, and, further, of effective guns for our coast batteries.

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I say nothing of ships' guns, a question that is best left to naval members of the House. I have also been glad to learn that the great Armstrong firm is prepared, on due notice, to turn out guns of all the kinds needed at the most rapid rate practicable. I have often mentioned before these items of necessary expenditure, but I do so again because the ears of the people are opening, and also because I would endeavour to acclimatise, so to speak, the Chancellor of the Exchequer to these new atmospheric conditions which he may have to live in. There is one other point I will touch on, because it has excited some interest of late—I mean the expected Royal Commission. The original proposal as embodied in the resolution of the hon. and gallant member for the Horsham Division of Sussex was, that the Commission should inquire into the strength of the forces by sea and land and the amount of war material necessary for the public security throughout the Empire. I do not profess myself an ardent admirer of Royal Commissions—they sometimes spend much time for small purpose and accumulate evidence which few read and fewer profit by; but this one would have had a distinct purpose. It would have been of great value both to the Ministers concerned by providing

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them with a standard of efficiency to which they could at all times refer, and to the nation by assuring it that, so long as that standard was conformed to, it would be impossible to take the country by surprise.

Now, we know that in another place an opinion adverse to this inquiry has been expressed by a personage whose views all Conservatives are bound to respect; and the First Lord of the Treasury has again told us this night, that though he does mean to grant a Commission, the inquiry will be one very different from what we ask for, and which some hon. members do not see a sufficient object in pursuing. The objection to the one asked for is, that the Government considers that in some way such a Commission would deprive Ministers of due responsibility; but I confess I am unable to understand the difficulty thus raised, for it is not to be supposed that Ministers individually or collectively would take on themselves the task of prescribing what the strength of the navy should be, what the number and organisation of the troops and the quantity of war material which are requisite for the service of the nation. They must apply to somebody of whose calculations they must assume the responsibility; and to whom could they apply

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with such confidence and safety as to a body of men selected as I have suggested, publicly appointed and empowered to bring full inquiry to the aid of their own experience? The responsibility of accepting their recommendations must still rest, as in any case, with the Ministry, and the responsibility also of departing from the standard in case of need, either by diminishing or increasing the forces.

It has been made a strong point that the right hon. members for Edinburgh and Stirling (Mr. Campbell Bannerman and Mr. Childers) support the Government in deprecating the inquiry asked for; it is said that when politicians so opposed in general to a Conservative Ministry happen to agree with it their conclusions must be reasonable. It does not seem to occur to those who use that argument that these former Secretaries for War might have other reasons besides a sudden desire to support the Government for wishing to avert a too profound scrutiny into the administration of the War Office. But such apprehensions are groundless. Nobody, so far as I know, wants to rake up the past; all we want is to fix a standard for the future. If I still venture to submit that proposal to the attention of the Government, it is from a conviction that it would be for the best

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interest of the Government to comply. I do not presume to offer the Government advice; I only offer my own view with deference as a military member and a supporter who wishes to see the Government as strong as possible in all ways.

In venturing to urge that, and also in representing that more expenditure is still needed for the defence of the country, I am only pointing to a course which would be in unison with the popular desire. Why, it is not so long ago that the right hon. member for Mid-Lothian came down to the House and, for reasons far less cogent than exist now, demanded eleven millions, and got it for the asking. I believe, therefore, that the notion that the people of this country are unwilling to provide funds for a due purpose has been allowed exaggerated influence. Certainly if any Government were to demand large sums, and to keep the country in the dark as to the disposal of them, it would run a risk which it could not be expected to face. But it would be a very different thing to convince the country that certain measures were necessary to its safety, and ask its sanction for them. I believe that the action of the Government in taking a hearty lead in the present movement will be widely approved. I should

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like to see its plan so completely carried out that little would be left to add; so completely that the people might repose in confidence that all had been done that could be done for the public safety. And if this would be good for the people, it would be good also for the Government that fulfilled the wish of the people.

> "There is a tide in the affairs of men,
> Which, taken at the flood, leads on to fortune."

On that tide the Conservative Government now floats, and with it float the destinies of England. Many popular waves are bearing it onward in its course; some raised by itself at home; the great Irish wave, setting in the new direction so bravely given to it; and now this flood of popular feeling is daily swelling and surging; and if our navigators do but continue to take due advantage of these, the ship of the State will be borne into that haven where alone it can rest in security—in the heart of the country.

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IX.

THE MINIMUM FORCE REQUISITE FOR SECURITY.

(*THE "NINETEENTH CENTURY," JUNE* 1888.)

DURING some years the present writer has from time to time set forth the following contention: that the reason why the country was allowed to remain in a dangerously defenceless condition was, that the people were blind to the peril; that it was only necessary for them to become aware of it in order to render it certain that they would raise a demand for measures of defence; and that until that demand should become urgent it could not be expected that any Government would enter upon schemes involving the expenditure of large sums on our naval and military departments.

In view of recent facts it cannot be said that this contention was groundless. Up to last year the people remained indifferent, though naval and military men tried to enlighten them, and nothing was done or even contemplated.

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But at last public interest was seen to be awakened, and the results were a series of Commissions to inquire into naval and military questions connected with administration, organisation, and defence; and also the announcement of a loan, limited to the extent necessary to provide for some of our most urgent needs. Ministers evidently considered this to be a spirited effort on their part, and they were justified in so considering it, because there was as yet no sign that they would be supported in making a large demand for the purpose. The public had as yet only one eye open; it looked sleepily on, and was apparently about to lapse again into its opium dream. But within these few weeks it has been once more aroused; first interest, then perturbation, then demand for action, marked the successive stages of popular feeling; but the demand was somewhat vague; only this was evident, that the public wanted to know the particular circumstances wherein the peril to the country lay, and how assurance should be given that measures would at once be taken to enable us to meet it. The utterance was so peremptory that the Government put half-aside for a moment its usual subjects of consideration, perceiving some kind of response to be a pressing necessity.

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And here I will pause to say, that I do not consider that blame should be attributed particularly to any Minister or any Government for not entering on expensive schemes of defence. One and all, when they have bestowed any more than the ordinary official attention on the forces and the defences of the State, have perceived that to put us into a condition of security was a huge undertaking, that it would be costly in proportion, and that, in the absence of a popular demand for it, it would be as much as the life of the Ministry was worth even to ask for the money. And Ministers, being for the most part, after all, merely human, with no pretension (other than official) to a lofty disinterestedness or to a taste for self-immolation beyond the average of the race, have gone on acquiescing in the indifference of the people. In every great department there is always plenty to be done in providing for the routine needs and dealing with the constant crop of daily business, and the Minister is held to do well who does not suffer these to fall conspicuously into arrear. But now the popular demand *has* come, the opportunity for making the country, once for all, reasonably secure *is* given; but I do not think the situation, with its requirements and its advantages, is as yet appreciated,

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of which view I will give the following illustration :—

Last March the military and naval members of the House of Commons framed a resolution embodying this idea: that it was expedient to arrive at an estimate of the strength of the national forces of all kinds, and of the amount of war material required for their effective action, which the country ought to be in possession of. An idea to the same effect had been set forth in the questions put by a recent Royal Commission, and in its Report. This resolution was submitted to Parliament with the suggestion that a Royal Commission should be appointed to give effect to it; and this course was supported in debate, and by a deputation to Ministers. But it was not received with favour. Ministers objected that the Commission, in framing such an estimate, would be in some way taking on itself the responsibility which Ministers ought to bear of regulating the war forces of the country, according to the modifications of policy which may be caused by the changes in the aspect of our foreign relations. Therefore they refused the inquiry asked for, but proposed to constitute a Royal Commission with a different purpose, namely, " to inquire into the civil and professional administration of

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the naval and military departments, and the relation of those departments to each other and to the Treasury; and to report what changes in the existing system would tend to the efficiency and economy of the public service." Here, all that was asked for is left out, and what is substituted is what nobody wanted, or what had already been sufficiently inquired into. But at that time the public interest had not been excited to the pitch it has since reached, under a concurrence of stimulating circumstances, and it was still open to those who had advocated the rejected inquiry to hope that it might now be conceded. Such an expectation is still, however, far from fulfilment, as is evident from the following Ministerial declarations:—

Lord Salisbury said in the House of Lords on the 14th of May:—

"I cannot at all coincide with those who think that these matters can be referred to anybody outside the Government. So long as the Government is what it is, it is responsible, and the responsibility must rest upon it. If you are dissatisfied with them you must change them, but you must not think that you can infuse efficiency into them by setting up an independent body by their side to advise them. We are to make ourselves safe, it is said. But safety is not an absolute term. You cannot write down so many soldiers and so many ships are what will make England safe. They are what will make England safe against some supposed attack; you must know what

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your enemy is likely to be before you know whether your preparations are likely to be sufficient; you cannot know what force under any possible circumstances can be brought against you without discussing matters which I need not prove to the House it is utterly impossible to discuss in public. The question of defence is a question which involves not only the War Office and the Admiralty, but the Foreign Office as well; and if anybody doubts that fact, let him read carefully that great speech of the Chancellor of Germany delivered at the beginning of this spring, in which he discussed the defensive and offensive position of Germany, and it will be seen that throughout it there is one point upon which he evidently laid stress. The consideration that was uppermost in his mind was, 'Who are our allies?' and 'Who are likely to be the enemies with whom we should have to fight?' Therefore, my Lords, I deprecate the idea that it is possible for any Government to lay down an absolute standard of safety. They must place the country in such a position that it will be safe against any danger which it is reasonably likely to incur; and in so doing I am sure your Lordships will believe that the more we deprecate publicity the more deeply sensible are we of the intense responsibility that lies upon us."

The First Lord of the Treasury, on the 15th of May, in the House of Commons, after explaining that the Government had "been unable" to grant the inquiry asked for, and what they intended to substitute, said :—

"The Government have shown their readiness to effect any economy which knowledge and experience can suggest. They welcomed inquiry and criticism. They do not seek to conceal shortcomings or mistakes, for which either they themselves or the system may be responsible. They do not

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shelter themselves by aid of a storm of party recrimination; but, adhering loyally to the principles of Parliamentary government which they are bound to maintain, they still hold to their view that the Government, and the Government alone, must be responsible for the measures to be recommended to Parliament and for the cost involved. If they fail to secure for themselves the best advice, the most competent guidance, and to form a judgment upon the facts; to give shape and direction to a policy suited to the necessities of the country; or if, in the judgment of the House of Commons, they are deemed to be incapable of doing so, it becomes at once the duty of Parliament to replace the men in whom it has no confidence for the discharge of the most important function of any Government —the provision for the safety of the country."

The Secretary for War on the same occasion, commenting on the subjects of inquiry which a previous speaker had suggested, and referring to the Royal Commission such as had been asked for, and that (Lord Hartington's) now substituted for it, said:—

"And first, with regard to the appointment of the Royal Commission. I think that anybody who has listened to the speech of my hon. friend will have observed the enormous number of questions that he desires to see referred to the Commission. If its scope were enlarged in the way suggested, it seems perfectly clear that its labours would be extended over years—('No, no')—and that we should not have a Report of any sensible value until, at any rate, two or three years have passed over our heads. The object of the Government is not to pile up Blue-books and hold exhaustive inquiries, but to take action—(Opposition cheers)

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—and our belief is, that the best means of attaining that object is to split up the objects of the inquiry. If we wish to have useful results, the inquiry which the noble Marquis is to preside over must be so limited that he will be able to exhaust it and present a Report before many months are over which will be of real value to us. We believe that that inquiry will produce valuable results, and it would be most ill-advised on the part of the Government if we were to attempt to place additional work upon it which would prevent the noble Marquis discharging that which he has already undertaken. But we do not shrink from inquiring into other subjects, and in doing so we shall proceed with all the speed possible, determined to take a full view of the whole of the important questions affecting the Empire which have been adverted to."

Finally, it has been announced that a Committee of the Cabinet has been formed to deal with the question of Imperial Defence.

From all this it would appear that, whatever the objection to the inquiry may be, it has not yet been exactly stated. For it is impossible to see how any apprehension can exist that it will trench on the due responsibility of Ministers. There seems to be some confusion between responsibility for policy, which, of course, must always attach to the Government, and responsibility for preparation, which is a very different thing. It is quite evident that it is the leaving of the preparation to the responsibility of Ministers which has brought us to our present

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pass. But in what way can responsibility for it attach to any particular Minister or Government? Preparation is not an act—it is a condition. What is asked is not that we shall be placed in that condition when the occasion occurs, but that we should always be in that condition, irrespective of any particular Government. It is impossible that the Ministry, by any assumption of responsibility, should be able to adapt the forces of the country to the shiftings of policy. When they speak of the Foreign Office intermingling in the question, and of the necessity of knowing what conjuncture of affairs we have to meet before fixing the strength of our forces, they are bringing matters into the question which have no relation to it. The reference to Germany is scarcely happy, for if ever a country was prepared for any war that might befall it, it is Germany. The real matter at issue—that is, the scope of the inquiry asked for—has either been misunderstood or has been lost sight of. For let us take an example from recent events. A very short time ago, to be measured by weeks, the hostility that we had to apprehend was, and for years had been, that of Russia. Therefore what we had to guard against was not a naval attack, still less an invasion, but a war for India. As for France,

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she had been for many a year intent on revenge upon Germany, and we never seriously contemplated an attack from her. But in a moment all this is changed; we are compelled to consider, as possible, war with France, a naval contest, and an invasion. And the next shifting of the European kaleidoscope may show us new possibilities. But in what way can those who direct our policy prepare us to meet with sufficient promptitude these entirely different circumstances? They cannot, on a sudden change in the aspect of foreign affairs, call up fleets and armies. If the country were already secure against attack, then indeed, resting on this defensive strength, they might turn with confidence to front danger as it shifted.

The resolution of last March, as submitted to the House, was (unavoidably, perhaps, from the necessity of condensing it) somewhat vague, and may possibly have been misinterpreted. It may be desirable, therefore, to state in more precise terms what matters it was intended to deal with.

The object, then, of the inquiry was the establishment of a standard by which for the future to judge whether the country is, at a given moment, so provided with forces by sea and land, and with war material, as to be secure against surprise.

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Now, one enormous benefit that would arise from this would be, that we should be free from recurring panics, with all their expensive consequences. But in order that the country may feel this confidence, it must understand the grounds for it. Therefore, instead of the inquiry being conducted by members of the Government, in consultation with those unknown persons whom they may designate their "military advisers," it would be essential that the inquiry should be undertaken by competent persons selected by the Government, and assigned to that particular duty, and that they should apply themselves to it in the face of the country. It is not intended to say that they should necessarily make public all the steps of their proceedings. It would be sufficient that the men were recognised as competent, that they were known to be engaged in this work, and that they should arrive at definite and specified results.

As to the subjects of their inquiry:—First, garrisons should be estimated and assigned to all our forts and posts at home and abroad. It should be determined in what cases these should be regulars, in what militia or volunteers; from whence these were to be drawn; how far the population could supply them; and in the case of native levies, how they should be organised and commanded.

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The quantity and nature of artillery and ammunition, and in the case of ports and harbours, the floating and submarine defences, have been already in most cases estimated by a Committee, and the Commission would only have to deal with the conclusions then arrived at.

Whether the Indian army should be included in this inquiry or have a separate one of its own would be for the Government to determine. It forms a vast item, with which only those who have held commands in it could be competent to deal; and the most trusted of its authorities have already framed careful and comprehensive schemes for the organisation and administration and employment of the forces in the great dependency.

There would remain all the forces at home not already absorbed in garrisons or posts, or destined to reinforce them. This great residue would be of three kinds: 1st, The Field Army, that is to say, the forces which would occupy the country in case of invasion, composed of regular troops, militia, and volunteers, of all arms; and these would be calculated on the basis of the conclusion come to as to what force an invader might reasonably be expected to be able to bring against us. 2nd, Besides the defensive force of the country, we should obviously need an expe-

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ditionary force. We have often needed it of late, and it should be procurable by some other means than the temporary destruction of our military system. A review of what our wants have been in the past in sending expeditions, and how far our efforts have been equal to the occasion, would supply us with the means of making a sufficiently definite calculation of the force and composition of this expeditionary army.

If we were at war with a power which threatened India, this expeditionary force might become the reserve of the Indian army. For it is not to be supposed that in the case specified we should take part also in another foreign war, But if it were necessary, from the character of a combination against us, to retain the expeditionary corps for home defence, there must be a separate reserve for India.

Lastly, must be provided the reserves for the whole imperial army, for the troops abroad, for the home army in all its branches, and for the expeditionary force, which must be maintained in efficiency throughout its operations. The assignment of the reserves to these purposes, the degree to which they should be held ready for embodiment, the sources from which they should be procured, and the exercises to which

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they should be subject would all be matters for the consideration of the Commission.

But the public so desire something that they can grasp in this matter, that to present them with abstractions only is to be disappointing and ineffective. I will therefore endeavour to render in some degree definite the items of the general description just given.

First, of the field army: it is generally assumed that an enemy would scarcely undertake an invasion with less than 100,000 men of all arms. At the same time such a force would demand an amount of transport so enormous that it might be impossible to increase it. Let us therefore assume (since it is necessary to assume something) that this is the force landed at first by the invader.

Now we might meet this army with the following forces, supposing them to be forthcoming, which I cannot certify: 75,000 regular infantry, 15,000 to 20,000 volunteers, which could hold fortified parts of positions occupied for battle, acting there on the defensive; 7000 cavalry, which, being relieved by the yeomanry from outpost, escort, and orderly duties, could remain intact, and would therefore be equal to an enemy's cavalry nominally superior; 210 field-guns, supplemented by sixty guns of posi-

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tion which would thus constitute together a more powerful artillery than a numerically superior force of the enemy.

This force must be exclusive of the garrison of Ireland, and of the separate force for the defence of London. Estimating the Guards of London (as I did in this review last month) at 60,000 rifle volunteers and militia, we now possess say 30,000 of these in the metropolitan corps, to which might be added 15,000 provincial volunteers as general reserves, who would not be required to be acquainted with the ground in the same degree as those holding it in first line. This would leave 15,000 volunteers to be still raised for the metropolitan force.

The guns of position have still to be manufactured, for those we possess only suffice for the defence of London, and they must be replaced as soon as we can get newer and better.

This army, with the advantages of holding a prepared position and of possessing a more powerful artillery, might be held sufficient to meet the supposed enemy.

The Volunteer force as existing would suffice for all its purposes, with the addition of the 15,000 rifles, as above, for the defence of London, and perhaps an increase of its artillery corps for the service of the guns of position.

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Next as to the reserves of the regular forces. Supposing the whole of our present reserves to be absorbed in raising our regular battalions and depôts to the total of 75,000 for the field army, we should be risking all our regular troops on the issue of one battle. Unless the enemy were decisively defeated and unable to renew the contest, his transports might bring him reinforcements from resources practically inexhaustible. We ought, therefore, still to have a reserve proper; that is, a reserve with which to fill up the battalions again. On the other hand, we need not look to a protracted contest—it would soon be decided one way or another. Supposing, therefore, that it is necessary to hold back 25,000 men of the reserve for the purpose of making good casualties and continuing the contest, the strength of the battalions at home must be increased to that extent.

As to the expeditionary force—taking the example of the campaign of 1882 as what might be sufficient generally for the purpose, it consisted of about 15,000 men of all arms, with the complement of guns. Should this force be in the country when an invasion happened, it would be so much added to our strength, and if we could depend on its presence we need raise fewer additional troops. But if it be conceded

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that it might already have been despatched to India or elsewhere, before the invasion (as is conceivable in the case of a combination of Russia with another Power against us), it must be held to be outside the calculation for defence, and must be a further addition to the army.

Owing to the traditions which inculcate the lesson of keeping the army as low as possible, any official entrusted with the calculation of a scheme of defence will be apt to rely much on makeshifts and on too favourable suppositions. I have been so far under the influence that what I have stated is the minimum necessary for security.

It is clear that, when the number of the forces was thus fixed, the amount of material necessary to render them effective would be a mere matter of calculation. Personal equipment, field equipment, ammunition sufficient for them, must not only be forthcoming, but must be made readily available by distribution in suitable localities. This standard of efficiency of warlike stores would ensure the country against such ruinous economies as the sale of war material to meet a financial difficulty, or the omission of it in the year's accounts for the purpose of keeping down the estimates.

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I have purposely abstained from all except rough or approximate estimates. To make definite estimates would be the business of the Commission.

Besides encroachment on the responsibility of Ministers, the prospect that the inquiry would be a protracted one has also been made an objection against the Commission. But the extent of the inquiry would very much depend on the Commission itself. One advantage in having experienced men as members would be, that they would know both what matters they required special information about and from whom to get it. Inexpert commissioners would spend immense time and labour in groping for information.

When the commissioners had finished their work they would cease to exist as a body, and thus would disappear all fear that "an independent body would be set up beside the Government to advise it."

But their work would remain and their conclusions would be made known forthwith. For it would be in accordance with precedent that the Secretary for War should announce to the House of Commons what their recommendations were, and how far they were approved; and that he should thereupon fully explain

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them to the House, in order to justify the cost he must ask it to sanction. It would thus be indispensable that the recommendations of the Commission should be laid before Parliament.

It is not only the country that would feel the advantage of this authoritative fixing of a standard. The Secretary for War, or the First Lord of the Admiralty, provided with this permanent justification and reference, would be a new man. No longer lost in piecemeal administration, he would have a definite criterion to direct his efforts by, and could at any moment satisfy himself whether the returns of his department were or were not in accordance with it. As for the Government, those changes in the direction of our policy which it contemplates, and which our defencelessness must render so cramped and often so futile, would attain to a degree of firmness and assurance such as they certainly could not pretend to now. It is, therefore, very difficult to understand (and I say it with all deference) why the Government should so decidedly resist a proposal obviously calculated for its own benefit, or why, after so freely resorting to Royal Commissions with a view to profiting by their recommendations, it should refuse to avail itself

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of the many and great advantages which the one in question would appear to offer.

The numbers of our defensive forces fixed, measures to facilitate their employment in the field should be undertaken. Last month I set forth in outline a plan for the defence of London. Some plan for that purpose should be adopted, as a separate and independent part of a general scheme for the defence of England. And here also it is obvious how that inestimable advantage, the confidence of the public, would be secured by confiding the work to a Defence Staff publicly appointed for the purpose. It is not necessary to suppose that the Secretary for War might not obtain very good counsellors to assist him, in his official seclusion, in framing and directing plans; but, good or bad, they would be unknown, and they would be so far deficient in the power to command public confidence. The work would consist mainly of fixing the localities in which the troops should be assembled, of calculating their movements from thence upon various possible lines of operation, of arranging for the complete utilisation of railways for the conveyance of troops, of selecting positions and deciding on the ways in which they should be strengthened, of registering the transport of

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districts and allotting it to the different parts composing the army, and of settling the points where permanent magazines, stores, and depôts should be placed.

There are passages in the extracts here given from the speeches of Ministers which I think all who, like myself, wish to see the existing Government fixed as strongly as possible in the esteem of the country must regret. I mean those in which an intimation seems to be conveyed that the Ministry would prefer to be replaced by another rather than be required to consent to certain things to which it objects. This is not a time at which such hints should be lightly used. To those who honestly believe that the mode of setting about Imperial Defence indicated in this paper is essential to its complete success, it seems altogether beyond reason that they should have the alternative offered to them of the relinquishment of this mode on the one hand, or, on the other, the return of embodied mischief to power.

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X.

THE POSSIBILITIES OF INVASION.

(*LETTER TO THE "TIMES," JUNE* 6, 1888.)

SIR,—I had some difficulty in believing the First Lord of the Admiralty to be in earnest last night when he so lightly disposed of the possibility of invasion by stating the amount of steam tonnage which the operation would require. For what he said was equivalent to the assertion that an invading army could only cross the Channel in steamships of the largest size, and that the whole of it must pass at one trip. What folly was it, then, that possessed our grandfathers when, on seeing a great army assembled at Boulogne for the invasion of England, they made such efforts by sea and land to meet an enterprise which the First Lord and Sir J. Colomb perceive to be impossible to-day, and which was presumably ten times more impossible in the days before steam?

Napoleon, writing to the admiral whom he

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had appointed to direct the operation, told him that the force he had assembled for the intended descent was 120,000 men, with 300 guns and 10,000 horses. The flotilla prepared to convey them consisted of flat-bottomed vessels of three classes: gun-brigs, heavily armed with artillery, and capable of conveying each a company of infantry of 100 men; gunboats, armed with fewer guns, carrying each a field-piece with its waggon and two horses; and pinnaces, each rowed by sixty to seventy soldiers. Of these about 1300 were assembled. Transport for the rest of the artillery horses, the cavalry, and the supplies was found in the fishing-vessels of the coast of from twenty to sixty tons, of which he had about a thousand. The troops were practised in embarking in this flotilla, with this result. "Experiment," says Alison, "proved that 100,000 men, with 300 pieces of cannon and their whole caissons and equipage, could find their places in less than half-an-hour." In the same letter Napoleon remarked, "Let us be masters of the Strait for six hours, and we are masters of the world." The ideas of Napoleon, and of the people of England at that time, also of the Danes, the Saxons, of Julius Cæsar and William the Conqueror, were evidently widely at variance with

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those of the First Lord on the subject of transporting armies across the Channel. But we need not go so far back for examples; many now living, of whom I am one, took part in the landing of an invading army of 55,000 men with 124 guns on the shores of the Crimea; the same army which a few days afterwards defeated the Russians on the Alma. The British troops were embarked in large sailing transports, each two of which were towed by a steamer. In this manner was accomplished a passage of the sea not to be measured, like that of the Channel, in minutes, but occupying from the 7th to the 14th of September. On the ground assumed by the First Lord, it would have been easy in 1854 to show that the landing of the Allied Army in the Crimea was an impossible undertaking. But I do not remember that any of those who effected it claimed to have performed a very remarkable achievement.

There is now a new circumstance greatly in favour of an invader; namely, the power of the fleet to ensure an unopposed landing. When Abercromby's troops approached the shore in Aboukir Bay, they entered a tremendous zone of fire from the French field-guns, which sank many of their boats. But now that every warship is an impregnable fort and carries guns of

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irresistible power, an area of coast is kept absolutely clear for the landing. And as the first troops landed can either remain within that area or begin the advance, the same transports which conveyed them would be free to return and bring over the rest. Thus, while steamers would not be indispensable except to tow the transports, the flotilla need not necessarily be so large as to be able to convey the whole army at one trip.—I am, Sir, your obedient servant,

EDWARD HAMLEY.

June 5.

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XI.

ARMY ESTIMATES.

(*HOUSE OF COMMONS, MARCH* 12, 1889.)

In reply to the Secretary for War on the army estimates, General Sir E. B. Hamley said :—The right hon. gentleman has given us a clear outline of parts of what may become a very comprehensive scheme. I say "may become," for we must remember that the object of all the measures which he has described can only be to bring the forces of the kingdom, with the fullest effect which preparation can give, against an invader; and that these and all other such measures must be judged by the degree in which they promise to accomplish that result. But the only result which the right hon. gentleman has pointed to is the occupation of certain positions round London where, in a few days, the defenders of London could be concentrated and entrenched.

Now, there are two ways of looking at the

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defence of London, either as a duty to be undertaken by a comparatively small body of troops specially devoted to the purpose, and operating as near the capital as the conditions of ground and the spread of streets and houses will admit of, or the interposing of the field army between London and the advancing enemy. In this latter case, the term "Defence of London" can only be applicable in the sense that the ultimate object of an invader must be to seize the capital, and that all operations against him may be said to be in its defence; but in this case the phrase loses its distinctive meaning, and is, in fact, misleading. But it is this latter case which the right hon. gentleman appears to contemplate. He seems to speak of assembling the field army and the field portion of the auxiliary forces in these positions, in order to deliver there a decisive battle. But he also tells us that these positions are "round London," which must mean near London.

Now, to choose ground near London for the first concentration of the army would leave great part of the South of England to the mercy of the enemy. If he had said that he meant to make here an ultimate stand for the defence of London his intention would have been clear, and in that case it would be well to strengthen

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the position, as he proposes, with works in which the Volunteers might most effectively co-operate with the regular troops. But the first concentration should take place as near as possible to the enemy's place of debarkation.

Mr. E. STANHOPE :—Nothing that I said was at all inconsistent with that. I especially reserved the field army as separate from the Volunteers, who would occupy this position.

General Sir E. HAMLEY :—To enable the field army to concentrate, by road and rail, on the menaced point must be the primary object of our efforts. And in mentioning rail, I would say that the right hon. gentleman's explanation would have been more complete if he had told us how he meant to bring the railways into the general scheme of defence. Again, when the right hon. gentleman described the excellent and necessary step he had taken of dividing the stores of the army and placing them at many points for ready distribution to the troops, we should have been glad if he could have told us also the selection of the points on lines of railway where magazines might be placed for ammunition. As to the assembling of the troops, I have no doubt that by the arrangement of Sir Redvers Buller this could be successfully accomplished in a very short time. In this connection

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the right hon. gentleman made mention of the Reserves. He told the House how he wished, and properly so, to give them opportunities of exercise, but he also explained the difficulties he had found in the way. If for Reserve men we read Volunteers the case equally applies, and therefore I trust that the right hon. gentleman is now convinced that I and other members were justified in the course which we felt ourselves obliged to take last year in opposing certain steps of his intended to invite the Volunteers to submit to fresh liabilities.

With regard to the guns with which he proposes to supply the Volunteers, the right hon. gentleman says that their value has been decried. This is unjust, because they are all that we have which are available and suitable. He then tells us that their calibre is more powerful than that of any which an invader could bring against them. But, in answer to this, I must observe that the power of guns does not depend upon their calibre alone, it also depends upon their range; and, supposing the enemy's artillery to be of superior range, he might take up a position beyond the range of our guns, and yet have our position within the range of his. I mention this only to show that they are only the best we now possess, and should be replaced by better

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ones; but I also admit that other kinds of guns are more pressingly needed. Some members opposite, who ought to know better, object to the estimates because they are too large. For my own part, however, I lament that the right hon. gentleman has not seen his way to repeat the loan which he obtained last year, because I believe the country was never in a better frame of mind to grant cheerfully all that may be necessary for our defence. All that the country desires is to be convinced that the steps proposed are necessary. This brings me to another point of great importance, namely, the defence of our commercial ports.

The right hon. gentleman has spoken of the progress made in supplying these ports with submarine mines, but other things are necessary, namely, long-range guns to keep off a hostile cruiser, and to protect our floating defences and the works in which to place them. The right hon. gentleman tell us he has made proposals to the municipal authorities of these ports, suggesting that they should bear their share of the expense, and he added that those proposals have been rejected. This I was very sorry to hear, because I wanted to see the commercial ports take a generous part in this enterprise. It appears that on the failure of

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the negotiations the project was brought to a standstill, but I would represent that the completion of these defences is anxiously looked for by the public. The results of some of the late naval manœuvres have strongly fixed attention upon this subject. Perhaps the postponement of this and other measures may be, in some measure, due to a certain theory which has been put forth by a school of naval opinion with the best intention, I believe, but which is so extreme that it may be called extravagant. The theory is, that we should abandon every kind of land defence in order to concentrate our resources on the navy. They affirm that if the navy suffer defeat we have no further hope; that in a few weeks we should be starved into surrender; that no invasion is necessary to complete the conquest of this country; and that no amount of land forces would serve to avert our fate. The men who maintain this also state that the navy is insufficient to protect us. If hon. members put these two affirmations together—first, that the navy is all in all, and, secondly, that it is incompetent to protect us—they will see that we have a very alarming prospect before us—so alarming that it is a good service to inquire whether it is true; therefore, with all the diffidence which a landsman must

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feel in opposing naval opinion, and with all deference to the decision which naval opinion may ultimately arrive at, I will venture to state the case thus. We have two kinds of naval defence. We have a fleet of battle-ships to meet the enemy's in a general engagement, and we have ocean cruisers to protect our trade lines against the enemy's cruisers. These two kinds of defence are distinct and separate.

Now, supposing that our ironclad fleet has suffered such a series of discomfitures as to be driven to take shelter in our fortified harbours, it could not be imagined that the enemy could have effected that result without being himself in a crippled condition. Would he, with what remained of his fleet, undertake the blockade of all our important harbours throughout the whole extent of our shores? If he did, he would offer us an opportunity of attacking him in detail with the serviceable ships still remaining to us. Or would he take the alternative course, and collect his ships in one or two squadrons with which to attack our merchant-vessels laden with food? Now, I confess that an attempt to intercept with ironclads swift ocean steamers, having such an extent of coast to make for, and such a large space of open sea in which to make for that coast, seems to me to be an impossi-

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bility. In any case, the theory, that the defeat of our battle fleet would entail the destruction of our commerce and the cutting off of our food-supplies, is one of such a formidable nature that we cannot accept it unless it is absolutely brought home to us by proof. Assuming that there is a flaw in this reasoning, and that we shall still be able to receive our food-supplies although our fleet had suffered disaster, it appears to me that we cannot too soon set about completing the defences of our commercial ports. It needs no argument to prove what an advantage it would be to ships making for those ports to find the ports open to them and closed to the enemy. But there is another point to consider in this relation. The advocates of the policy of abandoning all other attempts at defence except increasing the navy would have much more reason on their side if we could go at once into the market and buy any number of war-ships ready made and armed and manned. I, for one, should, in that case, be most earnestly desirous of putting all the public money that can be made available into this truly national investment. But we know that even the approach to a sufficient fleet which is at length so happily to be made cannot take full effect for four years and a half. What of the interval? We have

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frequently been assured of late that a great war-cloud is about to burst over Europe. It is impossible to suppose that this prophecy relates to an event which is not to take place for four years and a half. It must relate to something immediate. Thus we have this situation: an imminent crisis — an insufficient navy — and when the navy on its trial shall prove insufficient, nothing left but immediate surrender.

Now, this situation is so appalling that the theories which point to it ought to be at once tested, and either admitted or rejected; and if rejected, then we cannot too soon proceed with those measures of internal defence which will not only fulfil our immediate purpose, but which will immensely increase the power of our existing fleet. But before sitting down I will touch once more on a matter of high importance in this great subject of national defence. I will once more venture to impress on the Government the importance of establishing by competent authority, and in open day, not secret conclave, a standard of our military requirements for the defence of the kingdom and the Empire, with full details of the amount of forces needed, of their distribution, and of the material necessary for them. I am aware that a plea has been set up against this, and it was yesterday con-

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curred in by the right hon. member for Stirling (Mr. Campbell-Bannerman), a former Secretary of State for War. But I am totally unable to understand it, and I believe it cannot be understood by anybody who has not held office, which is an unfortunate position for a plea to stand in before the public. But I venture to believe that until this is done no measures that may be taken can be at once perfectly adapted to a sound general scheme and perfectly acceptable to the country.

I wish to acknowledge that the right hon. gentleman's proposals are excellent so far as they go, and I shall therefore heartily support them, as I would any proposals for the army or navy which are good as far as they go. Indeed, I cannot but concur in them, for they are such as for many years I have been pressing on the public. It is, of course, a satisfaction to find that my ideas are in unison with the ideas of those who have power to give them effect. I congratulate the right hon. gentleman on having got so far on the right path, and I hope he may yet see reason to respond to the spirit of the nation and to seek larger means of giving security to the country.

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CONCLUSION.

It remains to consider what measures have been taken for defence since public attention has become alive to the question, and what yet remains to be done.

It has been seen that in 1888 the Secretary for War asked for two and a quarter millions, which he obtained, and it has been devoted to the completion of the defences of the coaling stations, and to strengthening the armaments and fortifications of Malta and Gibraltar, and of Plymouth, Portsmouth, and the Thames.

The commercial ports still remain to be provided for. Although the proposals made to the municipalities for co-operation in the cost of their defences have met with but small success, the work is too important to be delayed for that reason. The response of the Secretary for War to the comments of Lord Charles Beresford and myself on this matter was an assurance that there is no desire for a moment to abandon the proposals put forward for the defence of commercial ports; and negotiations are, he said, in

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progress with the several towns, asking them to find the sites for defensive works, when the War Department will find the guns. These endeavours have been partially successful, and it is hoped that in other cases a satisfactory arrangement will be come to. But it does not appear that any defensive works are in progress at these points, nor is any time indicated for either beginning or completing them.

As to our means of internal defence, several steps have been taken in advance. In 1888 the Volunteer Infantry was organised in brigades throughout the kingdom, and brigadiers to command them are in process of appointment. So far as relates to their employment in their own localities, this is a very expedient measure, rendering their exercise in large bodies feasible.

The addition made in 1887 of five shillings per efficient man to the capitation grant has been held to entitle the public to expect that the force will provide in some degree for its own field equipment, but it certainly cannot enable it to do so nearly to the extent necessary.

The whole of the garrisons for our fortresses and commercial ports have been told off, and the particular duties to be performed by each corps have been laid down by the general officers commanding the fortresses and districts.

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Of the Volunteers that remain, parts are assigned to the duties of purely local defence, and the remainder will be mobilised in defence of the point or points principally threatened by the landing of an enemy.

A system of registration has been adopted for horses and for transport, by which these will be made easily available in time of emergency.

Sixty-seven batteries of Volunteer Artillery have been supplied with the best guns of position we had to give them.

The points where stores should be placed have now for the most part been selected. Some buildings have been acquired or adapted for the purpose; in other cases new store-houses are being built. Railway junctions or other points have been carefully chosen with the view of affording the greatest facility for moving the troops at a few hours' notice to any point that may be threatened.

The above statements are taken entirely from the speech of the Secretary for War of the 12th March 1889.

Except the formation of brigades, all these measures have been set forth, and the necessity of adopting them has been insisted on in the foregoing pages.

Others herein recommended remain to be

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taken. The equipment of the Volunteers for field service cannot be accomplished without expenditure which has not been provided for. Magazines still remain to be constructed on the necessary points. We are not told of arrangements for exercising the Volunteers in the posts to which they are assigned; and the language used is too general (as was natural in a statement of the kind in Parliament) to enable us to judge of the extent to which we are to be provided with storehouses and transport. It is not likely that the Volunteer corps destined for positions in the field which are distant from their present localities will be exercised on the ground they will occupy. One inevitable condition of a Volunteer force is, that it cannot be counted on to exercise in the full complement of the items composing it beyond its immediate neighbourhood; for, in the first place, men who earn their daily bread by their daily work cannot, as a rule, leave their homes for long, and those who now attend camps of exercise or places of instruction are such as, from their means or the nature of their occupation, can afford to take a holiday. Nevertheless, they offer themselves for these purposes in far greater numbers than could have been expected; but then comes in a second difficulty, namely,

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the expense of providing conveyance, lodging, and rations for large bodies; a cost which the Government is apparently not prepared to encounter. And, lastly, there is no provision made, notwithstanding certain passages in the speech already cited of the Secretary for War, for such a defence of London as has been comtemplated in these pages. For no mention is made either of an intention to increase the numbers of the London Volunteers, or of the line of positions which they would occupy specially for the defence of London; for, though his utterances point to the occupation of positions "round London" where "the defenders of London would be concentrated and entrenched," yet something quite different must be intended. Information is pointedly withheld as to the locality of these positions, though why they should not be indicated is not apparent, as the negotiations for the sites are pending, and the particulars must be generally known. The positions in question, on which field-works are to be traced, only to be completed on emergency, are believed to extend as far as the Dorking-Guildford range of hills. Now, in one sense London may be said to be threatened as soon as an enemy lands, and a battle fought at the Land's End may be said to be fought in defence of

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London. But this is quite a different matter; and while the line mentioned is too far from London to be occupied for its special defence by Volunteers, it is too near London to be the line where the enemy is to be first opposed, being, in fact, rather suited for making a final stand. We must therefore await further disclosures before becoming aware of what may be intended. But it is satisfactory that the public should be assured that no permament fortifications are to be erected. That sites should at once be purchased is highly expedient, as the spread of buildings and enclosures may at any time render those which are best for defensive purposes difficult to occupy. Field-works will then be merely traced on them, to be completed only when the occasion may arise. They would greatly strengthen any position, and might be suitably and effectively occupied by Volunteers.

The writer will once more express his regret that the proposal has not been accepted for the inquiry and report of a commission of competent officers upon our military and naval requirements, in order to the fixing of a standard. The substitution of members of the Cabinet for such a body cannot be expected to inspire equal confidence in the public, or to produce equally satisfactory results.

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It has been maintained throughout these pages that, however pressing our military needs may seem, they must yield in importance to those of the navy. Therefore, amongst all the measures now in progress, the most important is the proposal to provide ten millions, independent of the estimates, for increasing the fleet. That the work cannot be completed in less time than four years and a half is a misfortune, due to long neglect of our needs; and it is probable that, with our present means of creating ships and armaments, a larger sum could not be advantageously spent in the time. That we, a people who are nothing if not a sea-Power, and who depend for existence on our predominance on the ocean, should have permitted our naval strength to fall so perilously below the standard of security is amazing, and would be incredible had not experience taught us how strong is the influence which the desire of all British Governments to evade expenditure, and the fanaticism of economists and peacemongers, exercise on our policy.

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